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Original Articles.

THE CLASSIFICATION AND DIAGNOSTIC GUIDES OF INTESTINAL OBSTRUCTION.*

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VARIETIES OF ILEUS.

The medical writers of classical antiquity, beginning with Hippocrates, applied the term ileus to pathologic conditions in the abdomen characterized by meteorism, pain, vomiting of bilious feculent matter and interference with the passage of feces and flatus. The essential cause was believed to be inflammation of the intestine or of the peritoneum and "*ex inflammatione resiccatur intestinum et constipatur ut neque flatum neque alimenta transmittat. Venter durus fit et vomit interdum imprimis quidum pituitosa deinde vero biliosa, tandem etiam stercus.*"[1] According to Galen, inflammation produces a cessation of peristalsis, absolute constipation, or antiperistalsis with vomiting of fecal matter, or in brief, the disease called ileus. All through the middle ages the influence of the teaching of Hippocrates and Galen remained dominant. With the development of the anatomic school in the fifteenth and sixteenth centuries and the more careful postmortem examinations, varying anatomic conditions were recognized as the causes of ileus; so that at the close of the eighteenth century most forms of intestinal occlusions, as by invagination, compression by abdominal tumors, by pseudoligaments or omental bands, by gallstones and enteroliths, by diverticula of congenital origin and by slits or openings in the mesentery or omentum, were well known to the anatomists and pathologists. But the knowledge of these pathologic conditions failed to make any great impression on the physicians of that period, who saw in these anatomic conditions, not the causes, but accidental results of peritonitis, hardly ever absent in their postmortem examinations, and brought about by antiperistalsis or by a special quantity or quality of gas formation and retention. Ileus qualified by the adjective inflammatorius remained the collective term for the symptoms of the various anatomic conditions of intestinal strangulation and occlusion, all of them essentially of inflammatory origin. It was the zenith of the period of theoretical speculation of the arm-chair philosopher who, without the basis of exact observation, influenced and controlled medical thought and practice. To the ileus inflammatorius was now opposed the *ileus nervosus* by the neuropathologists, and we read of the ileus spasmodicus, *ileus paralyticus*, and *ileus antiperistalticus*, as a result of a pathologic innervation of the intestinal tract. It was only after the first quarter of the last century that the earnest insistence of pathologists, comparing the observations of the postmortem room with bed-side experience, pointed out the causal connection between anatomic findings and clinical symptoms without the injection of fanciful and speculative theories, bringing light into this most confusing subject and making the knowledge so gained available for practical endeavor.

CLASSIFICATION.

The diagnosis of ileus is about as definite of pathologic conditions as is the diagnosis of jaundice or of hematemesis. To get at the varying and divergent pathologic conditions characterized by a combination of symptoms of almost bewildering uniformity, the need of an unobjectionable classification is apparent. We, therefore, speak of first, congenital, and second, of acquired ileus. Congenital ileus offers scarcely a diagnostic difficulty of practical value and requires only casual mention here. Obstruction of the bowels in the new-born most frequently depends on an agenesis of the anus, or upon an atresia of the anus, rectum or colon. The occurrence of atresiæ in certain places of predilection in the ileum, jejunum and duodenum, due to faulty development or fetal peritonitis, is very rare, and still rarer, the occasion for a diagnosis. Acquired ileus may occur from the loss of propelling power in the intestinal musculature, or from a mechanical closure of the canal,[2] hence the division into, first, dynamic or paralytic, and, second, mechanical ileus. Dynamic ileus is the outcome of a paresis or paralysis of a piece of intestine of greater or less extent. It may be the result of inflammation, of mechanical or chemical irritation of the peritoneum, of bacterial infection processes in the intestinal canal not producing peritonitis, but hyperdistension from gas accumulation, or of embolism or thrombosis of the superior mesenteric artery or vein; or, finally, of nerve disturbances, as after anatomic changes in the central nervous system, producing loss of power in the abdominal muscles, interfering with the abdominal press, allowing an accumulation of flatus and fecal matter and producing hyperdistension. In addition, there is a variety of temporary character and one offering no difficulties in the way of differential diagnosis, viz.: reflex paresis after compression of a testicle in the inguinal canal and after operations for hemorrhoids and in hysteria. It might appear that ileus in connection with peritonitis might be omitted from consideration at this point. It is necessary, though, in an acute case of ileus and peritonitis, to determine whether ileus be the cause or the effect of the peritonitis and, if the latter, what is the cause of the peritonitis. Mechanical and chemical irritation are unquestionably the causes of dynamic ileus; it is not rare after extensive operations about the mesentery, after operations in which raw surfaces of the peritoneum remain and after a vigorous toilet of the peritoneum; it was frequent during the period of antiseptic abdominal surgery under carbolic spray and the use of antiseptics in the peritoneal cavity. There occurred distension of the abdomen, meteorism, inability to pass feces or flatus, vomiting and restlessness without pain or tenderness on pressure, without peritonitis, the condition well described as "peritonism." Sometimes hyperdistension in the intestine would produce venous stasis, serous infiltration of the intestinal wall,[3] at last permeability to and infection by the colon bacillus, when the whole dire picture of peritonitis would follow. More often ileus was arrested before it reached that stage.[4]

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* Read before the St. Louis Surgical Society.

[1] Hippocrates: By Kuhne in Ziemssen's Encyclopedia, by Leichenstern.

[2] Schlange: Handbuch der Prac. Chirurgie of Bergman, Mikulicz and Burns.

Ileus, the result of embolism of the superior mesenteric artery, is rare; comparatively few cases have been carefully observed and reported. This may excuse my inserting here a case in my own care three years ago.

History.—Physician, well nourished, aged 50, seen in consultation four days after occurrence of attack, had been a generous liver, had suffered many attacks of abdominal pain after indiscretions in diet; but believed he had never had appendicitis. He had been afflicted with inflammatory rheumatism and had recovered from last attack four weeks ago. He was taken four days ago with pain in the abdomen, severest about the umbilicus, accompanied by great prostration amounting to shock, and by vomiting. He was relieved by hypodermic injection of one-fourth grain of morphia; was better next day, but suffered an uncomfortable distension of his bowels, thought to be due to the morphia. Distension increased; patient took laxative without effect; at the end of the second day there was more vomiting and no flatus or stool. Temperature 99 F., pulse 110. On the third day the patient was rapidly getting worse; he had a large foul passage from bowel consisting entirely of black, tarry, putrid-smelling blood. Distension was greater and vomiting more frequent; abdomen tender on the left side.

Examination.—I found the pulse 120 to 130, temperature 101 F., pulse feeble and small, face pale, and anxious and clammy, barrel-shaped distension of the abdomen with well-marked dulness in the left side and considerable resistance; urine scanty, containing indican; heart sounds weak and mitral br[illegible]

Diagnosis.—Obstruction of the bowel. Because of the firm, well-marked swelling on the left side, we thought of volvulus of the sigmoid colon, of intussusception, or of embolism of the superior mesenteric artery. In the absence of straining at stool and of frequent bloody and mucous discharges, invagination discarded; patient being able to hold 2½ quarts of fluid injection, sigmoid torsion was thought impossible, hence the probable diagnosis of embolism of the superior mesenteric artery. Patient was made acquainted with the probable diagnosis.

Operation.—A laparotomy was done the same evening. Incision in and through the left semilunar line over the swelling. Very foul, bloody, serous discharge escaped on opening the peritoneum, and the involved bowel at once presented. A piece of ileum, rather more than three feet in length, dark brown, blackish in color, sodden, rigid and friable, was drawn out of the cavity; resected, and both ends fastened to parietal wound. Patient returned to bed, regained consciousness, though pulseless; never reacted. Death eight hours after operation.

Postmortem.—Examination showed embolus one and a half inches long in the superior mesenteric artery, and intestinal infarction of great extent. No other cause of obstruction; heart showed mitral insufficiency, and some fresh vegetations on valves. This was, therefore, an undoubted case of dynamic ileus due to embolism of the superior mesenteric artery.

For the elucidation of the interesting question, why after embolism of the superior mesenteric artery there occurs infarction of the intestine and gangrene when there exists apparently such complete collateral arterial circulation, I wish to quote from an interesting paper by Deckart.[5] The pathologic findings, after sudden closure of the superior mesenteric artery, were in all cases, except in three by Virchow, Karcher and Chene, hemorrhagic infarction of the section of intestine depending for its blood supply on the superior mesenteric artery, i. e., from the lower end of the duodenum to the colon transversum. Cohnheim, who took much interest in the question, could offer no satisfactory explanation, since the superior mesenteric artery is no anatomic end artery and its free arterial anastomoses show clearly in the normal mesentery. He, therefore, believed that such infarction of the intestine could only result if not only the trunk or larger branches, but the smallest branches be closed; in other words, unless the mesenteric artery has been first transformed into an end artery. He thought this at the time of the case of Ponfick, in which smaller particles from the embolus had plugged a great many smaller branches. This explanation is insufficient, since infarction occurs in cases in which the smaller arteries remain entirely unobstructed. The question was solved theoretically and experimentally, by Faber and Litten. Faber pointed out the very long distance which the blood in the collateral routes would have to traverse; the infarction is complete before that can be accomplished. The correctness of his supposition was proved by the experiments of Litten on animals. From the moment of the ligation of the superior mesenteric artery all circulation in the territory supplied by it was arrested and could not by any means be re-established. The pressure in the peripheral arteries was equal to zero; it behaved, therefore, like an end artery, and after its closure infarction of the intestine followed the reflux of the venous blood. Other points of interest in this article merit its careful perusal; also that of Borseky,[6] and that of Lillington.[7]

THE CLASSIFICATION COMMON IN THE TEXT-BOOKS.

The classification of mechanical ileus on an anatomic and clinical basis is the usual one and one which recurs in most text-books, whether treated of in works on surgery or on internal medicine. Let me select for illustration from some of the best sources. Leichtenstern[8] in his classical and exhaustive treatise in Ziemssen's Encyclopedia, gives us the following:

> The anatomic basis of occlusion or narrowing of the intestinal canal. *First,* causes which by pressure from without close the lumen, and to this belongs incarceration of the intestine in openings or slits, normal or acquired, in the omentum and the mesentery, and the fossæ for internal herniæ, strangulations by pseudoligaments, appendix and Meckel's diverticulum, compression by tumors, by the mesentery and dislodged viscera. We count here also torsion and knottings, since occlusion is here produced by pressure which the intestinal loops exercise on each other. *Second,* causes which pro-

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[3] Schlange: Grenzgebiete.

[4] Felix Lejars: Emergency operations.

[5] Deckart: Grenzgebiete der Med. u. Chirurgie, 1900.

[6] Borseky: Beitrage f. clin. Chirur., vol. xxxi, parts 3 and 4.

[7] Lillington: Lancet, May, 1902.

[8] Leichtenstern: Ziemssen's Encyclopedia.

> duce obstruction of the lumen by plugging: (*a*) Causes which are not in continuity with the intestinal wall, as gallstone, enteroliths, foreign bodies and *fecal* masses. (*b*) Causes which *are in* continuity with the intestinal wall, spread and obturate, as neoplasms. (*c*) Obturation by the intestine itself, as invagination. *Third*, causes which originate in the intestinal wall, or affect them by narrowing of the lumen *in ring* form, or by angulation or traction, as strictures and flexions; to it belong those originating in chronic peritonitis, the cicatricial stenoses and neoplasms, by infiltrating and contracting the intestinal wall. On the clinical basis: *First*, symptoms of total and complete occlusions and the symptoms of partially impeded permeability, and under this heading, causes which produce acute occlusion sudden, total and complete, to which belong incarceration, strangulation, torsion, sometimes gallstones. *Secondly*, those which are acute, but do not produce total occlusion at once, but which later result in it, as intussusception, incarcerations and acute incomplete compressions. *Finally*, causes which originate slowly and, as a rule, produce symptoms of disturbed permeability for a longer time until there occurs a sudden occlusion, or without it, peritonitis and perforation, and to this belong the causes by stenoses, by strictures, neoplasms and chronic peritonitis, the compression of gradually growing tumors, and the majority of obturations by stones and fecal impaction.

This very comprehensive classification, logical in its way, lacks in distinctness and, therefore, usefulness, while detracting nothing from the universally acknowledged most authoritative treatise for which it forms the basis.

Clear and concise on the same general plan is the classification of Treves.[9] He says:

> The classification of intestinal obstruction is most conveniently founded on the basis of morbid anatomy, and may be tabulated as follows: Strangulations by bands and through apertures; volvulus and intussusception, stricture, obstruction by tumors and foreign substances within the bowel, by pressure of tumors external to the bowel, and by fecal accumulation (page 601). From a clinical point of view, cases of intestinal obstruction may be conveniently divided into three classes: Acute obstruction, chronic obstruction, and cases in which symptoms of acute obstruction supervene on those indicative of chronic obstruction.

A REARRANGED CLASSIFICATION.

The above classification, with which writers in the main agree and which physicians and surgeons use as the basis for diagnostic differentiation, may, in my opinion, be reconstructed in the light of the observations and experiments of latest years, as shown in the writings and experiments of Wahl, Manteufel, Kader, Nothnagel, Senn, Schlange, Zeidler, Deckart and others. The experiments of Kader (as quoted by Zeidler[10]), show that all forms of mechanical ileus may be divided, from an important diagnostic and therapeutic view, into two divisions; into the obstruction due to strangulation, in which the intestine and its mesentery as well are strangulated and the circulation of both intestine and mesentery is interfered with, endangering the vitality of the obstructed section; and into obturation, in which the lumen of the bowel, without involvement of the mesentery, is interfered with and in which the subsequent changes are, in the main, due to stagnation of the intestinal contents. Strangulation of an external hernia may be taken as a paradigm of the first variety. The strangulating agents are of several kinds. Peritoneal adhesions may result in the formation of bands or strings, round, flat, short or long, which may connect one loop of intestine with another, or with the mesentery or parietal peritoneum. Like a band in effect is Meckel's diverticulum, which forms a finger-like projection from the ileum, usually within eighteen inches of the ileocecal valve. The end, though commonly free, may be attached to the abdominal wall near the navel or to the mesentery, and a ring is thus formed through which the bowel may pass.[11] From the end of the appendix and fallopian tubes similar bands may arise. Foramina in the omentum, of congenital origin, splits in the omentum or mesentery, from trauma or in broad peritoneal adhesions, may incarcerate a piece of bowel, as has also been observed, although rarely, in a split of the suspensory ligament of the liver, and in the broad ligament of the uterus. An important contingent is furnished by the herniæ retroperitoneales of Treitz, herniæ into the duodenojejunal, duodenal, pericecal and intersigmoid fossæ and through the foramen of Winslow into the bursa omentalis, as quoted *in extenso* by Rokitansky[12] from Treitz's article.

As in the external, *the ileum is most frequently concerned* in internal hernias. Much more frequently is the sigmoid colon concerned in a form of strangulation known as volvulus, or axial torsion. According to Rokitansky,[13] a piece of bowel may turn on its own axis and after a half turn the lumen may be occluded, or it may turn around the mesentery as its axis, or its axis may be both mesentery and colon, and finally around this loop another loop may become twisted. A long flexure with a long mesentery, so narrow that the mesenteric ends of the loop are close together, forms a favorable condition for torsion when the dependent loop is filled with feces. Sometimes a violent exertion or shaking is the determining cause. According to the observations of Lawson obturation occurs on a twist on its axis of 180°, strangulation only after 270°. Torsion may occur in the small intestine, with an abnormally long mesentery, very narrow at its root. Such condition may be congenital, or the result of inflammation, or of the fixation of a loop for a long time in an external hernial sac.

OBTURATION.

The clearest forms of obstruction by obturation are those produced by gallstones, intestinal concretions, foreign bodies and fecal impactions. Gallstones, causing obstruction, reach the duodenum or colon from the gallbladder through an opening, the result of adhesions and ulceration. Abercrombie,[14] however, mentions a case where at the postmortem examination of a patient, from whom a gallstone four inches by three and a half inches had been removed from the ileum during life, the common bile duct was still large enough to readily admit his index finger. The gallstone may become fixed in any part of the small intestine, rarely in the middle of the ileum, more frequently in the duodenum and jejunum, most frequently at the lowest part of the ileum, from one to two inches above the ileocecal valve. The reason for this appears to lie in the lessening of the lumen of the ileum as it approaches the cecum and in the fixation of the lowest part of the ileum by a short mesentery. While impaction of a gallstone in the ileum, as a rule, gives rise to most acute symptoms, many cases are recorded where in the colon and rectum, although of such wide difference as to size and structure, likewise threatening symptoms were observed. Sometimes small stones give rise to symptoms of obstruction (in a case of Israel, a stone one inch in its greatest diameter), initiated by reflex muscular spasms. Enteroliths are very rare and form gradually in the large intestine; a foreign body forms the nucleus for deposits of phosphate and ammonia-phosphate of lime. Foreign bodies getting into the small intestine most frequently, pass, unless they encounter some stricture or unless, on account of their own contour, they injure the mucous membrane and produce swelling, penetration, etc. Fecal accumulation occurs as the result of habitual obstipation and neglect in patients with mental depression, melancholia, or in imbeciles, or after the use of opium or astringents in supposed diarrhea and dysentery, the result of constipation. This is more frequent in the female.

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[9] Treves: Operative surgery, vol. ii, p. 629.

[10] Zeidler: Grenzgebiete der Med. u. Chirurgie, 1900.

[11] *Osler*: Text-book.

[12] Rokitansky: From Treitz's article, Pathologic Anatomy, vol. iii.

[13] Rokitansky: Vol. iii, p. 188.

[14] Abercrombie: By Zeidler.

A prolific cause of obstruction is stricture. Strictures of the intestine are either cicatricial or malignant. The cicatricial are the result of tubercular, syphilitic, dysenteric, stercoraceous, or typhoid ulceration, or are occasionally congenital or form after separation of a gangrenous intussusception, or from lesions following strangulation of the bowels in hernia. The tubercular stricture is most common in the neighborhood of the ileocecal valve, the dysenteric in the colon, the syphilitic in the rectum. The frequency of dysenteric stricture is much overrated, while that of the tubercular much underrated.

Malignant stricture is due to the growth in the bowel of a cylindrical epithelioma, the only primary form of cancer to which the intestine would appear liable (Treves). It produces a tough, ring-like stricture; the outer surface of the gut at the seat of stricture is often sharply constricted, while, in the interior, the growth assumes an annular outline. Sarcoma of the bowel rarely produces obstruction. Schlange[15] cites a case, however, in which symptoms of acute obstruction resulted from a sarcoma growing from a comparatively small pedicle of the submucosa, twisting the bowel and becoming impacted in the pelvis. Adenomatous and polypoid tumors may produce obstruction. An important rôle in the development of obstruction of the bowel is played by the results of chronic or circumscribed peritonitis, in the matting together of the intestines, their kinkings, angulations and flexions. Treves admirably described these often complicated conditions.

INTUSSUSCEPTION.

Intussusception is the most frequent cause of ileus. The general anatomic features need no description in this place. In spite of its importance and frequency, I have placed it last, because in it strangulation and obturation are almost inseparably bound with each other. The condition and behavior of the mesentery determine the picture of strangulation or its absence. Rokitansky says:

> Between the intussusception and the intussuscipiens lies the mesentery belonging to it, folded into a cone, the apex of which is at the fore end of the intussusception and the base at the entrance of the intussusceptum into its sheath. By traction on the intussusceptum this becomes curved with the concavity forward at the mesenteric attachment, and the whole involved loop is drawn toward the vertebral column.

In the invaginated mesentery the signs of interference with its circulation depend on the extent and rapidity of the development of invagination. The acuity of the symptoms is always proportionate to the severity of the strangulation of the mesentery. In the most violent cases the arterial and venous circulation is interrupted and gangrene is the inevitable consequence. The dangers in the acute stages are gangrene and perforation at the neck of the invagination, of the chronic, death from exhaustion and stercoremia. In the rare cases of cure by sloughing, obstruction from cicatricial stenosis threatens the life of the patient later.

According to the site of the invagination we speak of enteric or ileal, of colic, of ileocecal and ileocolic invagination. According to Leichtenstern the ileocecal is by far the most common, 44 per cent.; the enteric, 30 per cent.; the colic, 18 per cent.; the ileocolic, 8 per cent. Wiggins found the frequency of the ileocecal variety as high as 89 per cent in 103 cases. Ileocecal invagination occurs most frequently in children. Seventy per cent. of cases in children are of that variety. Ileal invaginations are most frequent in the adult and are chiefly found in the lower part of the ileum.[16]

SYMPTOMATOLOGY OF ILEUS.

The classical descriptions of the symptoms of acute and chronic obstruction, which abound in our text books, invite repetition or imitation; but by the division of ileus into a dynamic, strangulation and obturation variety, I have created for myself a great difficulty. The old picture does not quite fit. Dynamic ileus shares with the mechanical varieties the cardinal symptoms of interference with the passage of feces and flatus, of meteorism, of vomiting and pain; but it takes cognizance of peritonitis as a cause of ileus, which opens the scene, while in the other it closes it. Furthermore, the dynamic variety embraces forms so temporary and mild, that the paresis of the bowel with its distension and meteorism may disappear before fecal vomiting occurs; while on the other hand, in the most acute form due to embolism of the superior mesenteric artery, the patient may succumb to gangrene and stercoremia before peritonitis is fully developed. An aggravated case of ileus, whether dynamic or mechanical, is characterized by constipation more or less complete, by accumulations from excessive formation and retention of intestinal gases, by pain and vomiting, at first bilious, finally stercoraceous, by prostration, and scanty urine, most generally containing indican.

Of the symptoms above enumerated, perhaps the fecal vomiting and indicanuria deserve further notice. It is now generally accepted that fecal vomiting is not due to antiperistalsis, but to a "running over of the intestinal contents upward" by regurgitation of the stagnant, putrefying, feculent fluids. I can not refrain from considering the question not entirely settled; my own observations and experience and the interesting experiments reviewed in the *Grenzgebiete*, 1902, by Mühsam,[17] leave this particular phenomenon *sub judice*. The condition of the urine in patients with ileus has received much study. Carter called attention to the presence of indican in the urine in intestinal occlusions. According to Taffen, Orthweiler and Nothnagel's experiments, increased indigo secretion requires the presence of sufficient albuminoid material in a state of intense putridity and the absorption of formed indol. The results of these experiments show that the formation of indican began after twenty-four hours and reached its maximum on the third day. It is absent or present in very small quantities in occlusions of the large intestine. In diffuse peritonitis it is generally present in large quantities. With the above named symptoms present no experienced physician or surgeon will find much difficulty in making the diagnosis of obstruction. The difficulties begin when we try to differentiate and to find the underlying anatomic conditions and site. The present postulate insisted on by Wahl requires a diagnosis of the site and the nature of the obstruction. Desirable as this is, it will often be found impossible and this surely, in spite of the careful study of the history and local conditions, when in the later stages peritonitis blurs all signs. A knowledge of the possible anatomic conditions, a careful study of the history of the case and local examination, by palpation, auscultation and percussion will help greatly, especially when we shall feel the cultivation and application of these methods to be as essential and productive of results here as in determining the physical signs of chest conditions. Clinical observations and experiments allow of the recognition of certain modifications of form and motility. In circumscribed peritonitis the affected section becomes distended and paretic; in acute diffuse septic peritonitis the distension may reach the limits of the cavity, the intestinal tract is paralyzed and peristalsis abolished. In strangulation the involved loop is paralyzed, distended and fixed and the afferent gut, in the first days at least, but little affected. The strangulation agency fixes the loop *in loco*. Distension, with loss of peristalsis, may develop in from four to eight hours; the circulation is seriously compromised. The fixed, distended, paralyzed loop, devoid of peristalsis, produces asymmetry of the abdomen noticeable by inspection. (Zeidler[10]). In obturation, the circulation in the intestinal wall is but little affected in the beginning, since the mesentery is not involved. Dilatation of the proximal intestinal section occurs gradually and peristalsis is often increased above the point of obstruction. There is no fixed paralytic loop. The distal end of the intestine is empty. The recognition of stiffening or peristaltic loops above the point of obstruction is significant of obturation. When, later, peritonitis is added, all peristalsis ceases and the picture becomes obscure.

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[15] Schlange: Handbuch der Practischen Chirurgie.

[16] International Syst. of Surgery, p. 354, vol. ii.

[17] Mühsam: Grenzgebiete der Med. u. Chirurgie, 1902.

DIAGNOSIS.

Dynamic Ileus.—The diagnosis of dynamic ileus concerns itself first with the question of peritonitis, and, if peritonitis be found, with its cause. If we find distension and paralysis of the intestine as evidenced by absence of peristalsis and want of contouration of intestinal loops; if the abdomen is tender on pressure and the patient lies on his back afraid to move, the diaphragmatic descent interfered with, and breathing labored, hurried and thoracic; if there be indican in the urine and the urine scanty, the pulse rapid and feeble, the diagnosis of peritonitis is easily made. Temperature is not a reliable diagnostic sign. The answer to the question as to its cause will be reached by inquiring: Was there an appendicitis, a leaky tube, an ulcer in the stomach or duodenum and perforation; was there typhoid fever? The embolic form is dynamic; if the onset was sudden, accompanied by pain and prostration with obstruction to feces and flatus but the discharge of large, putrid, bloody, tarry stools with a demonstrable exudate in the flanks and if endocardial heart lesions can be made out, a probable diagnosis of embolism of the superior mesenteric artery with infarction of the intestine may be arrived at. The varieties of dynamic ileus, due to mechanical and chemical irritation or of nervous origin, will be diagnosed by a careful consideration of the history, by the mild general and generally temporary symptoms, and the absence of fixed, immobile loops of paralyzed intestine and by the absence of much tenderness on pressure.

Strangulation Ileus.—Having in a given case eliminated the probability of paralytic ileus and decided that we are dealing with a mechanical obstruction not congenital, the question of strangulation or obturation presents itself. The paradigm, as mentioned above, of a strangulation is the strangulated external hernia, of a strangulation of the bowel and its mesentery. The picture of strangulation is a striking one. A person, apparently in good health, is suddenly taken with a violent pain in the abdomen, accompanied by collapse, nausea, vomiting. To this is very soon added the urgent desire to relieve the bowel of feces and flatus. There is at once the feeling of serious illness, of great anxiety and restlessness. Unrelieved, these symptoms are joined by that of intestinal distension. The pain generally felt about the navel is not significant of locality; it is infinitely more severe in the thin, highly innervated, small intestine than in the large. The initial vomiting with singultus is reflex and begins with the occurrence of strangulation, and with it also come the signs of collapse, the incarceration collapse, and almost anuria from reduction of the arterial pressure. The vomiting in later stages is due to distension and gas accumulation, the stercoremia to toxic absorption or septic infection after permeability of the intestinal wall has become established. After a few hours, perhaps from eight to twelve, the results of the circulatory interference become noticeable; the strangulated section of bowel becomes distended, fixed and paralyzed, and in favorable subjects, seen early, produces asymmetery of the abdomen and can be made out by inspection and palpation. The afferent loop is not yet appreciably distended; peristalsis may be present. All symptoms increase in severity. To the distension of the strangulated part distension of the proximal loops is added and general greater distension. The efferent intestine has been emptied of fluid and gaseous contents and remains collapsed. To the initial shock, the incarceration shock, after the second day are added symptoms of permeability, due to changed condition of the gut at the point of strangulation, and symptoms of general peritonitis develop; the vomiting increases in frequency and the putrid feculent intestinal contents are emitted by regurgitation. The abdomen is tense and tender on pressure, peristalsis everywhere absent; to the signs of stercoremia are added those of septic infection. With the occurrence of gangrene the pain grows less and the patient enters the stage of lethal collapse. The occurrence of perforation may somewhat modify the latter symptoms. If we add to these local symptoms those of the general condition, the rapid, feeble, compressible pulse, the anxious expression of countenance, the pale or cyanotic color, the sunken eye, the pointed nose, the skin cold, clammy and empty of blood, we get the appalling picture characteristic of the result of sudden strangulation. While from such a picture the diagnosis of strangulation ileus will not be difficult, the anatomic diagnosis of the site and nature of the strangulation will barely be one of probability. During the first day, however, in band or twist strangulation, the fixed, dilated, paralyzed loop will give valuable hints.

Obturation Ileus.—In the main, the general symptoms of obturation bear a great resemblance to those of strangulation; a closer investigation, however, will disclose quite a difference in their character. Let me consider them singly. Vomiting in strangulation is present at the beginning, is initial and reflex; in obturation it is rarely present early; but in later stages, after distension and overfilling of the canal above the point of obstruction, it is always present and soon becomes stercoraceous. This latter symptom is more definite in obturation than in strangulation in which the initial vomiting empties the canal above the point of obstruction and prevents over-filling to a great extent, and in which death often takes place before an accumulation of foul and putrid masses can occur. Obstruction to the passage of feces and gas, absolute in strangulation, is often incomplete and intermittent in obturation, depending on the character and extent of the obturating cause. The pain in strangulation is severe and continuous from the beginning; in obturation it may be severe but it is of a different character; it is periodical and intermittent and accompanies the peristaltic contractions in the loop proximal to the obstruction; it is of spastic, tetanic character. The incarceration shock, so profound in strangulations, is absent in obturations. The pain may be severe, but the rapid loss of strength and the feeble heart action of strangulation are absent; the pain may continue for days and days, but the heart remains fairly strong; it is only after the appearance of stercoremia and septic infection, that the natural exhaustion due to suffering and sleeplessness and starvation, gives way to collapse. Meteorism is present, but not localized in a loop, as in strangulation. The principal cause of meteorism, according to Kader and others, is to be found in the circulatory disturbance of the affected loop and the immediate disproportion between gas resorption and accumulation. In obturation it accumulates in the canal above the point of obstruction, peristalsis is marked and may indicate the point of obstruction. In the intensity and character of the peristalsis, we find important signs of obstruction, and especially in cases where an acute is grafted on a chronic stenosis, obstruction, etc. In those cases the hypertrophy of the muscularis gives to the contraction a marked character; tetanic rigidity and contouration of stiffened loops visible above the *niveau* of the abdomen.[3] In the not chronic conditions the muscles are soon exhausted and contractions give way to paresis. In the words of Schlange, the peculiarities of obstruction ileus are the absence of the initial, continuous pain, the absence of early collapse; the presence of readily recognizable distended loops with more or less strong peristaltic mobility and the presence of disturbances of any kind, which may show the existence of causal or chronic conditions in the abdomen and especially in the bowels.

DIFFERENTIAL DIAGNOSIS.

I have aimed in the foregoing to present a basis for subdivisions, into which may fit the various important anatomic conditions in a concrete form. Let me then presume that in each case a careful history, especially of previous abdominal conditions, has been elicited, urine, blood and all hernial openings been examined, that a diagnosis of ileus has been made, that congenital and dynamic ileus have been excluded and that the case is one of mechanical ileus of the strangulation variety, and in a fairly early stage. Question, is it due to band or string, volvulus, intussusception, or internal hernia? What local signs can help us? The abdomen is fairly distended, but on inspection and careful palpation we find a loop of the bowel, fixed, distended and paralyzed. The strangulation is then due to a band, diverticulum, volvulus, or invagination. The appendix vermiformis, for our purpose, is practically a diverticle, and a diverticle practically a band. Strangulation due to band is very rare in childhood, patients are generally young adults; in 68 per cent. there is a history of peritonitis and usually the small intestine involved. The onset is sudden, pain early, continuous, incarceration collapse well marked, absolute constipation, stercoraceous vomiting late, no tenesmus, no bloody mucous discharge from the rectum; rectum empty, holds large quantity of injection fluid, distension gradual and central, territory occupied by large intestine empty and collapsed; if the appendix acts as band, the fixed loop is in the right lower abdomen. Volvulus of the sigmoid colon affects most generally an adult between 40 and 60 years, is rare before 40; is four times more common in men than in women; there is a history of chronic constipation; the pain is less severe than in band, collapse less intense; the vomiting later, tenesmus is present in 15 per cent., distension begins on the left side in a loop, which gradually moves upward and to the right hypochondrium; the distended colon can be made out; on examination per rectum we may feel the end of the distended loop in the pelvis or abdomen; the rectum will not hold a quart of fluid. In torsion of small intestine around a mesenteric axis pain is more acute, distension central, large intestine empty and collapsed, will hold quarts of fluid, vomiting early, rarely stercoraceous, no history of peritonitis. Intussusception mostly in the young; 50 per cent. in children under 10 years, onset sudden, pain at first intermittent, vomiting not so early, is less urgent and sometimes absent; there is tenesmus and bloody and mucous discharge from rectum, sausage-shaped tumor generally felt in the abdomen by palpation or the intussusception found in the rectum. There remains the internal herniæ, of which the hernia duodenojejunalis is the most frequent. This is probable in strangulation ileus in the absence of a fixed, immobile, paralyzed loop, with intense thirst, early vomiting, rarely becoming fecal. Quoting again from Leichtenstern:

> I consider probable diagnosis possible under favorable circumstances and with a fairly large hernia. The circumscribed, spherical distension of the mesogastrium, collapse or sinking of the territory occupied by the colon, the palpability of a circumscribed, tense, elastic, spherical mass, which gives the impression of a large, somewhat movable cyst, which tends toward the left from the mesogastrium, the quality of a definable tumor which gives a sonorous percussion sound and on auscultation loud, clear, intestinal noises with bleeding from the rectum and hemorrhoids, from compression of the inferior mesenteric veins, seem to make a fairly clear picture.

Jannesco has collected 64 such cases. Koenig[18] states that of such herniæ, of which 50 are beyond doubt, according to a critical review by Sonnenburg, who operated on one case successfully without having recognized its nature, not one had been diagnosed. The indication was incarceration high up in the small intestine. Those in the fossæ subcecalis or intersigmoideæ are very rare indeed, and have not been found sufficiently often to offer a diagnostic hint beyond strangulation not coming under the described heads. Obstruction ileus having been diagnosed, how may we differentiate its various forms? Obturation may cause symptoms of acute or chronic obstruction; the acute generally grafted upon the chronic, except in gallstone, enteroliths and foreign bodies. Senn's[19] experiments seem to demonstrate that occlusions of the lumen by foreign bodies give rise to symptoms of obstruction after tissue changes have begun in the intestinal wall from contact with the foreign body. While the symptoms in gallstones frequently are very acute, they lack the intensity characteristic of strangulation. The presence and character of foreign bodies, we learn from the history; attacks of gall colic accompanied by severe symptoms or of jaundice more or less persistent, will indicate the probable nature of the obturation. Acute symptoms of obturation point to enteroliths, after the exclusion of foreign body or gallstone. Occasionally, under exceptionable circumstances, the stone may be felt. Acute symptoms of obstruction by invagination are soon lost in the picture of strangulation, the finding of the tumor, often sausage-shaped, the tenesmus, bloody mucous discharges with the indications from the age of the patient, help to make a correct diagnosis.

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[18] Koenig: Lehrbuch der speciellen Chirurgie, vol. ii.

[19] Senn: Practical Surgery.

THE DIFFERENTIAL DIAGNOSIS OF CHRONIC OBTURATION ILEUS.[20]

The progressive development in the clinical knowledge of enterostenoses may be best appreciated by a study of the works of Leichtenstern, Treves and Nothnagel. In them we find demonstrated the close relation between the motor signs and the chronic development of the impediment. Treves describes graphically the colic attacks, and Nothnagel the rigidity and tetanic contractions of the bowel above the obstruction. The colic attacks are not of a duration as in kidney or gallstone. They are rather like short and periodic labor pains, accompanied or followed by loud splashing, tinkling, purring noises and subjective feeling of turning about or rolling of the intestine. I can not here go more extensively into a detailed study of the subject, but the value of a correct interpretation of the variety, duration and location of the contractions, etc., is indisputable for the differentiation between stenosis of the small and large intestines. Acute attacks of varying intensity appear from time to time. In the intervals, the symptoms of obstruction may subside. In time the intervals become shorter and the attacks longer and finally complete. In fecal impaction vomiting appears late and is never feculent until after a period of complete obstruction; constipation is pronounced, increasing; meteorism gradual; the abdomen feels full and doughy and a tumor can be made out in the colon or rectum. As a rule, it is of a doughy consistency, but may be hard and tender on pressure, in which latter peculiarity it differs from the carcinoma. The greater number of the cases of partial chronic stenoses depends on the development of strictures, malignant and cicatricial. Nothnagel says of 343 cases of carcinoma of the bowel recorded postmortem, 162 were rectal, 164 of the colon, 10 of the ileum, none of the jejunum and 10 of the duodenum. Therefore the large majority are within reach of touch, sight and palpation. Malignant strictures are more common in the large, cicatricial more common in the small intestine. Stricture of tubercular origin is most frequent in the ileocecal division and most frequent in the ileum; those following syphilis and dysentery, in the rectum and colon; cancerous strictures are rare before forty; cicatricial occur earlier in life, often preceded by a history of tuberculosis, dysentery, trauma or strangulated hernia.

Obstruction from compression by tumor or peritoneal exudate and matting together of intestine can generally be determined by a careful physical examination of the abdominal and pelvic cavities, and its character, location and probable influence on the intestine, estimated. Nothnagel says that the anatomic diagnosis of intestinal obstruction is the most difficult of anatomic diagnoses. I entirely agree with him. Nevertheless the attempts toward solving the difficulty should be persistently continued until the goal be reached. When the symptomatology of obstruction of the bowel shall emerge from its chaotic condition, the indications for prompt and correct therapeutic measures will become apparent to the physician, and surgery, stepping in early, will score some great triumphs.

REPORT ON TWO OF THE CHILDREN OPERATED ON BY LORENZ.

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SAN FRANCISCO.

In May, 1903, I removed the dressings from two of the children who had been operated on for congenital dislocation of the hip by Professor Lorenz of Vienna, when he was in San Francisco in November, 1902. One of these cases I had seen in November, 1900, but the parents then declined treatment, coming back to San Francisco two years later, however, when they heard of Lorenz. This case returned to me by agreement when the time came for the removal of Lorenz's dressings. The other case was the child of a physician, and had never been seen by me until he was on the operating table, but returned to me, also by agreement, as did the first.

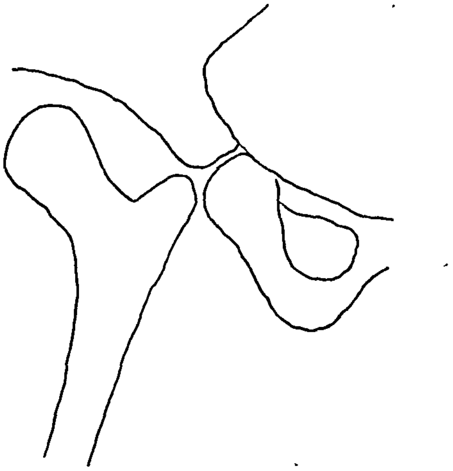

Fig. 1.—Case 1. Outline of upper end of femur and pelvis immediately after the removal of the Lorenz dressing, May 11, 1903. (Reduced from radiograph.)

In each instance there were several surgeons present when the splints were removed. The children were radiographed immediately after the splints were off, before any examination was permitted, and this record being thus secured they were examined and such notes as were necessary were made.

CASE 1.—A boy, aged 5 years. I had seen this child in November, 1900, and he had then an anterior dislocation. He had a slight limp only. By November, 1902, his condition was worse and Lorenz made an effort to put the head into the acetabulum. The plaster-of-paris dressings put on by Lorenz were worn continuously until taken off in my office. The radiograph (Fig. 1) was taken and the following description was made at my request by Dr. James T. Watkins. It expresses my own findings perfectly, and is given as the joint testimony of Dr. Watkins and myself.

"The plaster dressing applied by Professor Lorenz after he had operated on the 'Case 1' boy in November last for congenital dislocation of the left hip, having been removed, the boy was examined and *x*-rayed without removing him from the table.

"I found the left thigh flexed on the pelvis to about a right angle and abducted till it lay in the frontal plane of the body. Neither outward nor inward rotation was apparent. The leg was flexed on the thigh but could be extended. In other words, the limb was in the attitude in which it was put in the plaster dressing. There was some atrophy of the muscles of both the leg and the thigh.

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[20] Sklodowski: Grenzgebiete der Medicine u. Chirurgie.

"The femoral artery could not be compressed between the finger and femoral head as is normally the case; but the head was recognized external to the artery and more superficially placed than usual in a position beneath the anterior superior iliac spine. The greater trochanter was in a plane posterior to that in which the head lay. It was placed at the level of the acetabulum. Whether or not it lay in the same frontal plane as the acetabulum could not be determined."

The head was in a subcutaneous position in the outer part of Scarpa's triangle, while the trochanter was somewhere behind and internal to it. The condition was not one favorable to any stable support of the pelvis on the femur, and I suggested to the mother the propriety of a cutting operation to try to improve things. This was agreed to, and the child was sent back to the hospital.

The following account is made from notes dictated during the operation:

As the child had been using the limb for about a week I found much greater mobility at the hip than had existed when the splint was first removed, but the position of the head was that noted by Dr. Watkins. As I adducted the limb, under anesthesia, there was outward rotation and the trochanter assumed a position inward and posterior to the head. Inward rotation, to which there was some resistance, put the head in the position ordinarily occupied by it in anterior dislocations, but the position was not maintained and the head moved outward when the limb was left unheld.

A longitudinal incision was made, internal to the tensor vaginæ femoris and directly down to the head. This was just beneath the fascia lata. Around the head was a thin fibrous layer which I at first took to be the joint capsule, but which I later found to be only a layer of laminated fibrous tissue, an adventitious capsule. This was freely laid open and long catgut loops put in the sides of the incision to act as retractors. The cartilage of the femoral head, now exposed, was found to be eroded, as if by some absorptive process. The pit for the ligamentum teres was obvious, but there was no ligament.

Usually at this stage of the operation for reduction by arthrotomy I am able, by flexing the hip to a right angle, to thrust my finger down to, and sometimes through, the constricted part of the capsule, but in this case it was impossible. There was no such open path. Further dissection showed a band of capsule, coming from the lower part of the acetabulum and twisted around behind and above the neck; but partial section of this did not open up the way to the acetabulum. Finally the rim of the acetabulum was located and the capsule opened there. It was then found that the manipulations in November, 1902, had torn the capsule, had thrust the head through the opening and left it among the muscles at the outer part of Scarpa's triangle and just beneath the fascia lata, while the trochanter had been crowded into a position internal and posterior to the head and very nearly into the acetabulum.

The acetabulum, once exposed, was found to be very shallow, but the head was easily put into it, or on it, by an inward rotation movement. Very little capsule, however, was left in front of the head, and this was a serious loss.

The wound was closed in the usual way and the limb and pelvis put in a plaster-of-paris spica, the thigh being flexed, abducted and rotated in so that the pull of all the long muscles of the thigh should crowd it directly against the floor of the acetabulum.

The disclosures of this incision suggest certain thoughts. It is obvious that in all cases in which an anatomic reduction can not be made the body weight must be carried by the capsule of the hip joint. It seems equally obvious that an intact capsule would carry that weight better than one that had been lacerated, and so it is impossible to avoid the conclusion that any manipulation that lacerates and weakens the capsule is a detriment. Now the tendency is for the dislocation ultimately to become a posterior one, even though it is anterior in infancy and childhood. I can see no condition, exposed by this incision, which could be counted on to prevent this backward movement. If the movement took place one would expect the head, entangled in the rent in the capsule, not to move as fast as the trochanter, and an outward rotation of the limb to occur. Furthermore, the rent in the capsule must be on the distal side of the constriction, and the moment it is made, all hope of crowding the head through the constriction and into the acetabulum is lost; moreover, if the head be now put on the acetabulum it is wasted effort, for the proximal part of the capsule is stretched over the acetabular cavity from rim to rim, and not only closes it, but makes the cavity, perhaps originally not deep, still more shallow. There is not room in a normal hip joint for a layer of capsule between the head and acetabulum; there is still less with the parts deformed as they are in congenital dislocation. Just how this boy was benefited by the manipulations of Professor Lorenz, I can not myself see. Of course, it may be said that I robbed him of the possible benefit by doing a cutting, "bloody" operation. For this reason Case 2 has not been operated on and can now be studied.

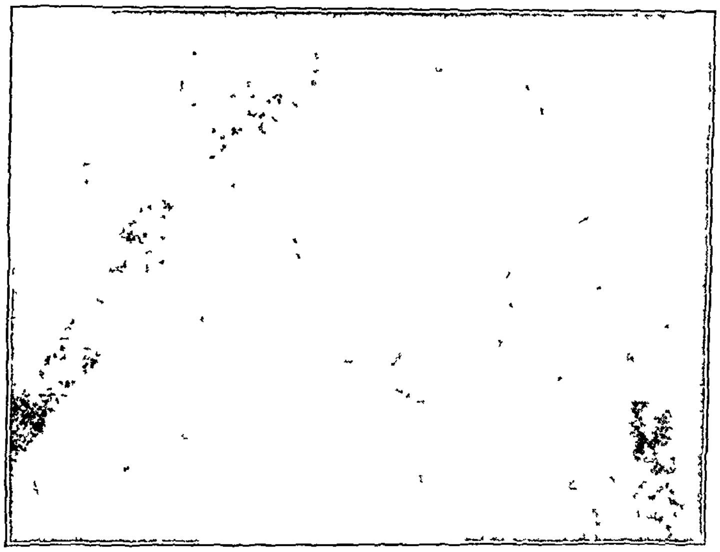

Fig 2.—Case 2 Immediately after removal of the Lorenz dressing, June 3, 1903.

Case 2.—Boy, 4 years old, with a posterior dislocation of the femur. He was operated on at the same time as was Case 1, by Professor Lorenz at the Children's Hospital. The splint was taken off in my office, June 3, 1903, having been on a little over six months. The same method was followed as in Case 1, and the child was radiographed immediately after being taken from the splint. Palpation showed the femoral head to be in the outer part of Scarpa's triangle and very near to the skin. There was a little active motion, and more passive motion. The child had walked in his splint, but could not do so after the splint's removal. The conditions, on examination, were so similar to those in Case 1 that I presume the same amount of mischief was done, that the capsule had been torn and the head thrust through the rent out into the surrounding muscles, that around it had developed an adventitious thin capsule, and that the untorn portion of the capsule reached up behind the head to the upper part of the neck near the trochanter, while the acetabulum was still closed by the capsule stretched across it, from rim to rim.

Examination of Case 2, October 10, four months after the removal of the splint, and during which time the leg had been in use, shows that the child stands without lordosis; he walks with a little straddle of the legs, and with a turning out of the foot; at the same time there is a lateral and backward sway of the trunk on the pelvis, lordosing and bending sideways the lumbar spine in each step. The limp was observed by Dr. Watkins and myself, with the child nude and walking to and fro in a good light. It is certainly a definite quantity. The femoral head can be felt to be just outside of the anterior superior iliac spine and above the acetabulum. The trochanter is behind and internal to the head. The neck is, consequently, directed forward and outward and upward, the latter in accordance with its natural obliquity to the shaft. About 1 cm. or 1.5 cm. up-and-down motion is permitted by the head with the limb extended, and when the hip is flexed, the center of motion is at the trochanter and the head travels upward and backward with the flexion. The center of motion is presumably at the point where the probable rent in the capsule embraces the femoral neck, perhaps close to the trochanter, though it seems to be in the trochanter itself. In its present place the head is further from the mesial anteroposterior plane of the body than it would be in either of the ordinary anterior or posterior positions, and this will explain the most obvious lateral sway in the step, for the child has to make this motion in order to balance the body over the unstable and eccentric support. The limb is 2.5 cm. shorter than its mate. The parents say they can see no improvement in the walk since the operation. A radiograph (Fig. 2) was taken at this time. It shows shadows which correspond with the clinical findings as described above.

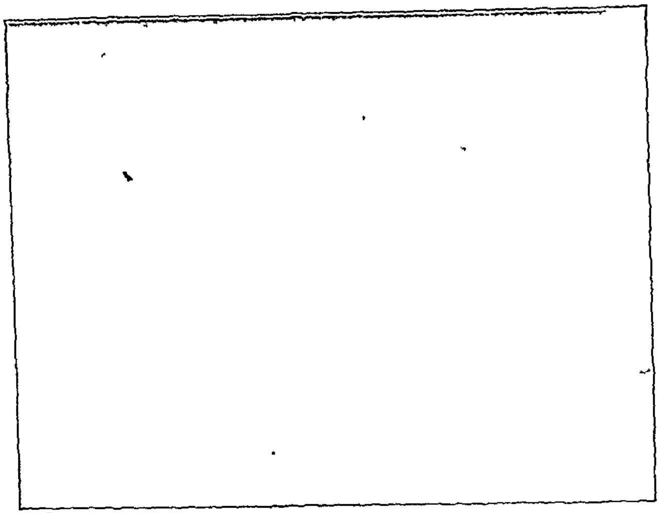

Fig. 3.—Case 2. Showing upper end of femur and the pelvis, the toes held to point forward.

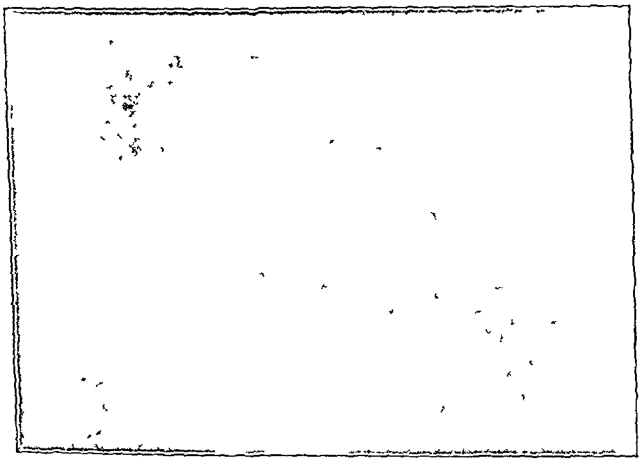

Fig. 4.—Case 2. Showing upper end of femur and pelvis, the leg being permitted to roll outward.

Assuming that the capsule was ruptured in this case, as it surely was in Case 1, and admitting, for it can not be denied, that the body weight has to be carried by the capsule, the shortening of the limb now must be greater than it was before the manipulation; for the capsule now reaches only to the neck, whereas before it reached to the head. I can not state that the limb is shorter, for I never examined the boy before his operation, but I believe it is so. Now, in this position, with the head looking forward and the trochanter backward, the toes point forward and outward. The trochanter is apparently behind and the femoral head just above the acetabulum. If the upper end of the femur travels back to the position on the dorsum, the outward rotation may be increased, with an increase in the awkward position of the foot. This will be of no benefit to the child if it takes place. If it does not take place, the present position and the present eccentric point of support and the semi-waddle it imposes, will last through life. I can not see that this is any improvement on the conditions existing before the operation.

The radiographs show, in Figure 2, the position of the parts when the original splint (Lorenz's) was taken off; in Figure 3 the position which the upper end of the femur takes in relation to the pelvis when the foot is held so that the toes point forward, and in Figure 4 the same when the limb falls into the spontaneous outward rotation position.

TABLE WINES. ARE THEIR USES TO BE ENCOURAGED?*

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I suppose the preacher of even a lay sermon is expected to select some text more or less befitting the subject of his discourse; therefore, I have chosen I Timothy v, 23, "Drink no longer water, but use a little wine for thy stomach's sake and thine often infirmities."

In these days of biblical exogesis the reverential respect of the fathers has become badly shaken, and with perfect complacency we now revise the revision of the revised word until, like the boy's jackknife, the new handle, fitted to the new blade, is still claimed to be the same old knife.

The first revision was in the earlier day, when the crusaders of the new temperance faith openly absolved allegiance to King Alcohol, and declared that public tippling at the house of the tapster should be abolished. The temperance lecturers dwelt on the evils and the doom of these open enlisted followers of the King, and the pictures of the physical, financial and moral ruin of these men was so graphically depicted that every listener would have had a delirium of nightmare had he not conscientiously believed that the photographic vision was of the "other fellow" and not of himself. These same moral temperance teachers, for the most part, accepted it as orthodox that whisky, brandy, rum, gin, etc., were excellent medicines, and that when the tides of life ran low they were indispensable to tone and brace up the general system.

After having shown that the rôle of these so-called remedial agents was founded in a misconception of a conservative prejudice descended from the fathers, it was asserted, and abundantly proven, that strong alcoholic drinks were injurious as medicines, and rarely if ever to be administered for the good of the patient. Still further revision showed that when these stimulants were taken, even in small doses, but in daily repetition, certain chronic changes of the tissues ensued; that such individuals, although seemingly well, often added unduly to their weight by the lack of elimination of waste material, and that they became subject to certain chronic diseases affecting especially the kidney and liver.

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* Read at the annual meeting of the American Medical Temperance Association at New Orleans, May, 1903.

Then it was demonstrated that the resistant power of the organism to disease was lessened. As an illustration, an increased tendency to tuberculosis.

A still more careful analysis of these revisors demonstrated that the experience of the centuries was all wrong; that the witness, who, in January most earnestly testified that he drank alcohol and it warmed him, was considered prejudiced, especially when it was shown in evidence that the same individual claimed that after taking his favorite beverage in July he was cooled thereby.

The physiologist who became a member of this investigating committee, after a prolonged and profound research, showed that the especial monitors—God's sentinels at the inner gate of our consciousness—had been more or less narcotized, and, therefore, did not correctly report the state of the weather. Following this new lead of investigation, it was demonstrated that in perfectly healthy young individuals, selected for the test, moderate doses of alcohol lessened the special senses in an almost uniform ratio, so that vision, hearing, smell, taste, touch, muscular force were all appreciably lessened; therefore, it followed that the endurance and fighting qualities of the soldier and sailor are impaired; that the soldier can not march so far, endure hardship as well or shoot as accurately, and that since each soldier of the United States represents an average annual cost to the government of $1,000, therefore the economics of the equation demanded that as a fighting machine his ability should not be impaired by the taking of alcohol.

The revisors of the revision were even now not satisfied, and by further scientific investigation attempted to prove that alcohol in all its different forms of drink is alcohol still, and that it does not matter whether it represents a weak solution, as ale, beer, cider or light wines. In other words, that an ounce of alcohol taken in a quart of beer or in a pint of light wine is just as injurious as if diluted in the same amount of water; that it is a poison, and exerts its influence on the tissues in a directly relative manner.

Now if this is the modern, scientific explanation of the effect of alcohol on the animal tissues, where will we find the truth of our text as announced by the great Apostles? And why should we not accept the teachings of our fathers, fortified by the experiences of the centuries that the discomforts due to a defective digestive process might be speedily relieved by a dose of hot toddy. Our physiologist says the sensation of discomfort is relieved as by a narcotic, but the digestive process is retarded rather than enhanced by the remedy.

Some scientists stoutly affirm that a small quantity of alcohol may be safely oxidized in the tissues, and have even gone so far as to state that the average healthy adult may thus dispose of two ounces of alcohol in twenty-four hours, transposing it by a process of oxidation into heat units. But the same opinion is carefully qualified by the statement that the temperature of the individual may be more easily and safely maintained by the transposition of ordinary food products.

If this brief résumé of the physiologic effect is correct (and in the support of this opinion it is easy to quote a long array of the best modern scientists), what can be said in favor of the uses of wine as table beverages?

Even from the remotest antiquity, in every generation and among all peoples, the vine has been cultivated and its products held in the highest esteem. Poets have vied with one another in singing its praises, and the grape in its many varieties has justly held a high place in public favor. Inasmuch as it was impossible to supply this fruit in perfection in general use, except for a brief period of the year, it was perfectly natural that some measures should be devised for better preservation, and it was easy to determine that this was not possible, except through the processes of fermentation, which modified their juices, and by the addition of a considerable amount of alcohol under favorable conditions rendered permanent their keeping qualities.

Very modern science has taught the causes which produce in great variety the flavor or bouquet, which renders wines so desirable and causes them to be held in high esteem. The general public has been taught for the most part only the injurious rôle of the bacterium, so that, indeed, it is often stigmatized as deadly. The fine flavors of the high-priced creamery butter are now very commonly produced by the introduction into the cream of a special variety of bacteria cultivated for the purpose. Cheese owes its flavor to certain forms of these organisms, and of more recent demonstration is the proof that in the fermentative process of wine-making certain bacteria may be introduced which produce the much-desired flavors of the high-cost vintage which was supposed hitherto possible to obtain only in certain especially favored cellars.

The wise custodians of these establishments had for many years religiously believed, not alone in the even temperature and dryness of their cellars, but had insisted on the advantage of letting them from year to year remain absolutely uncleaned. In this way certain ferments were readily preserved indefinitely, and were thus accidentally introduced into the ripening wine. Profiting by this, selected varieties of bacteria are now cultivated with the assurance of an annual product of high-grade wines. Thus it is demonstrated that it is not the percentage of alcohol which causes these wines to be so high-priced and much sought after, but something else. And we may well ask ourselves if modern science may not give us this something else in even more desirable form and eliminate the alcohol.

We are all singularly creatures of habit, and become so wedded to certain tastes and flavors that the deprivation of the same is held by the individual as a more or less positive detriment; and this brings us to a subdivision of our subject, to which I can only allude, the so-called flavors, condiments, relishes, etc. The physiologist will tell you that there is a reason why every man requires salt in his daily food, but he will be troubled to explain the almost equally universal demand of the Mexican for the extraordinary use of pepper and of the Italian for garlic.

It would be hardihood on the part of any scientist to advocate the adoption of the universal ration, although he can demonstrate most definitely that a healthy individual of a fixed weight requires certain given amounts of starch, fats and proteids. When we add to these fundamental elements of nutrition the thousand and one various modifications of food, we recognize that we are doing it chiefly for the purpose of making our daily diet more attractive and giving a better relish for food.

The modern miracle of the preservation and transportation of food stuffs renders it possible to place on our tables in excellent condition the products of all climates at reasonable cost. The banana, a generation ago a rare and expensive tropical fruit, has become of almost daily use, even in homes of those in limited circumstances. Preservation by use of cold storage has worked a wondrous change in the continuous supply of fruits. At a slight increase of expense apples in good condition are abundant in the market for the larger portion of the year. This is also true of oranges and lemons, etc. The strawberry, from its first fruiting in Florida until the end of the season in Nova Scotia, furnishes an abundance of delicious fruit at moderate cost. These are selected as illustrations of the wonderful modern progress which permits the table of those even of limited income to be supplied with healthful accessories to diet which serve as relishes to the appetite rather than absolute necessities for the preservation of existence.

That which is true of fruits is also true of modern beverages, which in a still greater degree are classed as relishes or aids to appetites. Pleasant, refreshing drinks in daily use are made from these fruits, as lemonade, fruit sherbets, etc. Scientific processes are yet to greatly lessen the cost of fruit juices and proportionately wisely increase their use. Modern processes render it perfectly feasible to concentrate the juice of a lemon into a quarter of an ounce of fluid and render its preservation indefinite, thereby reducing the cost to the consumer with equal profit to the grower by three-quarters. That which is true of the lemon is true of many other fruits, especially that of the grape. The large expense of light wines lies in the hitherto necessary bottling and handling of its large factor in bulk, which is only water. By the careful abstraction of water, claret is easily reduced in bulk by three quarters. These condensed wines keep much better and are ready for use by the simple addition of water. This process is already in use in France and has been enthusiastically recommended. The abstraction of the water without damage to the wine, by any of the heat processes, has proven to be impossible since the delicate aroma which is the chief attraction of the wine is thrown off even more rapidly than its alcoholic contents. Although every housewife delights in the preservation of fruits which add so materially to her table delicacies, she is painfully aware that despite her utmost care, a large part of the delicate aroma of the fruit is lost in the heat processes necessary to the preserving.

Somewhat recently advantage has been taken of the fact that the water in fluids submitted to low temperature under favorable conditions became ice crystals, entirely free from admixtures which the fluid contained. Therefore, wines submitted to this process parted with a large share of their bulk without loss of their alcoholic or other essential qualities. Fruit juices submitted to the same process are easily concentrated in the most remarkable degree, and there is every reason to believe that in this way very many additions can be made to our table delicacies. Most delicious beverages which many think are preferable to our most costly wines can be manufactured in this way, preserving without detriment the exquisite flavors and colors of the carefully ripened fruit. That such beverages are beneficial, no one can question, and they may be destined, in a degree at least, to supplant our enormously excessive use of tea, coffee and alcoholic stimulants.

A brief description of the process may be instructive. The fluid to be concentrated is subjected to a temperature below freezing, and the ice crystals as formed are mechanically broken up. The resulting product may be considered an unsweetened fruit sherbet. This is transposed into a centrifugal machine of high power, and the ice crystals are driven out so forcefully that they resemble snow ice, and require breaking up with a hammer. The uncongealed concentrate diminished 60 to 80 per cent. of its original bulk. is ready for preservation. Such a process is not an expensive one and can easily be installed at places convenient of access at the cost of a few hundred dollars.

The quality of the product will necessarily depend on the quality of the fruit used, as defective flavors are as much intensified by concentration as desirable ones. My attention was first called to this process many years ago, in its application by the farmer to late-made cider. He purposely exposed his cider in casks to low temperatures, freezing it as much as possible, then draining off a concentrate reduced to a fifth or even a tenth of the former bulk. The processes as above outlined have passed the experimental stage, so far as the economy of production and quality of product are concerned. Applied to milk, 60 per cent. of its water is easily extracted by a single freezing, its keeping qualities greatly enhanced, so that the family supply of milk can be purchased weekly instead of daily, with immense saving of cost alike to the producer and consumer.

It is not too much to believe that revolution in the drinking habit may be expected with an almost limitless profit to the consumer. In the place of table wines, as now used by the comparative few and now believed to be demonstrated of positive injury when habitually taken, there will be furnished to the many the fresh juices of the grape and other fruits, which, constantly used from youth to old age, will be found healthful and invigorating.

When a man may be better clothed, better housed and better fed, he is no longer satisfied with his former estate. When he may drink freely without being intoxicated, when he may have more delicious drinks which appeal to his appetite without detriment to his physical and moral well being, he will as readily make choice of his new beverages.

Another step in the progress of civilization has been made, and a new era is opened up to him. Modern science is the magic transformer of the centuries.

Reorganization of Medical Societies.—The project which involves a merger of the county and state medical societies with the national organizations has much in it to commend. Under the new régime, the county society is made the unit and enjoys representation at the state association, which in turn sends delegates to the parent organization. Both of the latter, moreover, are, for convenience sake, divided into legislative and scientific sections which conduct the business pertaining only to their respective departments. All prospective members, therefore, are required to join first their county or district society—which action renders them eligible for membership in either of the others. The advantages accruing from an amalgamation of all or most medical associations of the United States is apparent to all and the last obstacle in the way of such advance was removed by the national body when the "code of ethics" was abolished and gave place to the "principles of ethics" which are merely advisory and suggestive and place no undue restrictions.—*New England Medical Monthly.*

THE DECAPSULATION OF THE KIDNEY,

WITH REFERENCE TO THE CONCOMITANT INTRA-OCULAR COMPLICATIONS IN THE CHRONIC FORMS NEPHRITIS.*

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The object of this paper is to elicit the interest of the members of this Section in determining whether or not the decapsulation of the kidney can be accepted as a curative or as a palliative measure for the various intraocular complications accompanying either the diffuse, interstitial or chronic parenchymatous nephritis. The question of decapsulating the kidney[1] still attracts considerable attention,[2] not only from the standpoint of the surgeon but from that of the internist as well. The writer is well aware of the fact that it is rather early to make any definite statements or draw any definite conclusions as to the merits or demerits of the operation from an ophthalmologic point of view.[3] But, if the paper should arouse enough interest in the matter so that before long we might have either a symposium or a more extended report on this subject, as is our wont in such matters, we would be in a position to decide a very important question which would be infinite in its reachings. In this particular, it is only necessary to call attention to the tremendous death rate in those forms of subacute or chronic nephritis associated with deep-seated fundus lesions, especially albuminuric retinitis.

The surgery on encapsulated organs, such as the kidney, liver and spleen, is of recent origin. The pioneers in this field are Reginald Harrison of England, Israel of Berlin, Pean and Pousson of France, Ferguson of Chicago, and Edebohls of New York. It is to be hoped, however, that with reference to the decapsulation of the kidney it will not be as it was with the splitting of the capsule of Glisson, namely, a nice experimental operation but of no practical value, as its results are not definite.

It was Edebohls[4] of New York who first split the renal capsule with the avowed intention of curing a case of chronic interstitial nephritis. Since then, a number of surgeons have performed the operation. However, no mention at all was made in most instances of the condition of the eye at the time of the operation, nor, for that matter, at a subsequent time. It is sad, but nevertheless true, that the general surgeon pays very little attention to the eye when it comes to operations on the kidney. This was a pertinent point brought out by an extensive correspondence on this very subject in order to gather data for this paper.[2]

The very fact that we, as ophthalmologists, are often the first to apprise the patient of any kidney lesion makes the subject of great interest to us. And, if the future will soundly establish the value of kidney decapsulation, it is our duty to follow up such cases now, with or without eye lesions, as submit to the operation.

True it is that we do not at present definitely know how the operation accomplishes the good it does,[5] even in those cases without deep-seated fundus lesions. That is to say, the pathologists have been unable to give any definite data, and experimental work[6] along this line does not seem to offer a very satisfactory solution.

The deep-seated fundus lesions usually accompanying an interstitial, parenchymatous, or diffuse nephritis of the chronic variety, are about the same in character. We know these to be a simple retinitis, neuroretinitis, optic neuritis (all with or without retinal hemorrhages), and some form of choroiditis. From the fundus alone we can not determine what form of kidney lesion is present. But when a retinal lesion is present we know that it materially adds to the gravity of the prognosis. The severity or extent of the fundus lesion in a measure indicates the amount of kidney and vascular involvement. The reverse of this statement is also a fact, in a limited degree.

The frequency with which the fundus is implicated in the various forms of chronic nephritis is startling. According to Lécorche 20 per cent., according to Galezowski 33 per cent., and according to the writer at least 30 per cent. of all chronic Bright's disease patients present some fundus complication. It is not by any means such a very doubtful statement that every one with a chronic nephritis will probably have some fundus implication before he dies (provided the nephritis carries him off). For we know that the fundus may be involved and yet the patient not be aware of it. There is no stated time during the nephritis for the retinal or other fundus lesion to appear. At times these lesions are the initial symptoms; again, they appear very late or very early in the attack of nephritis. And we are aware that frequently the very first diagnosis is made by an ophthalmoscopic examination. So much importance ought we to attach to this statement that a careful examination of the kidney should be made whenever a retinal lesion of an inflammatory nature is detected. This is also true with reference to the acute forms of nephritis on behalf of the retina.

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* Read at the Fifty-fourth Annual Session of the American Medical Association, in the Section on Ophthalmology, and approved for publication by the Executive Committee: Drs. J. A. Lippincott, Frank Allport and John E. Weeks.

[1] Following is the main surgical literature on decapsulation of the kidneys. There are included references to two articles (by Ferguson and Whitacre), which have appeared in THE JOURNAL since the reading of the paper. Edebohls, G. M.: "Renal Decapsulation for Chronic Bright's Disease," N. Y. Med. Record, March 28; 1903; also "Question of Priority in the Surgical Treatment of Chronic Bright's Disease," N. Y. Med. Record, April 26, 1902, p. 651; also, "The Cure of Chronic Bright's Disease by Operation," N. Y. Med. Record, Dec. 21, 1901, p. 961; see also Brit. Med. Jour., Nov. 8, 1902, p. 1507. Ferguson: THE JOURNAL A. M. A., July 4, 1903. Whitacre: THE JOURNAL A. M. A., May 23, 1903. Primrose, A.: "The Operative Treatment of Chronic Bright's Disease," Canadian Jour. of Med. and Surg., 1902, xi, p. 143. Harrison, R.: London Lancet, Jan. 4, 1896, p. 18; also British Med. Jour., Oct. 19, 1901, ii, p. 1125. Rovsing, T.: "Operative Treatment of Chronic Nephritis," Mittheilungen a. d. Grenzgebieten d. Med. u. Chirur., 1902, vol. x, p. 288. Guiteras, R.: "The Surgical Treatment of Bright's Disease," N. Y. Med. Jour., 1902, lxxv, p. 847. Lyman, C. B.: "The Surgical Treatment of Chronic Bright's Disease," THE JOURNAL A. M. A., 1902, xxxviii, p. 1030. Pousson, A.: "De l'Intervention Chirurgicale dans les Nephrites Médicales," Annales d. Maladies d. Organs Genitourinaires, 1902, xx, pp. 513, 641 and 832. Israel: Deutsche med. Woch., Feb. 2, 1902. Gradle, H.: "Neuroretinitis Due to Disease of the Kidney," Chicago Med. Recorder, Nov. 15, 1902, p. 321.

[2] About 200 letters were sent out by the writer to men of repute, both surgeons and ophthalmologists, in various sections of the country in reference to this question.

[3] This is, perhaps, the first attempt that ever has been made to gather data and discuss this question from the standpoint of the ocular involvement in chronic nephritis and its relation to decapsulation.

[4] This was on Jan. 10, 1898. The first operation and the five preceding it which led up to the question of decapsulation are reported in the Medical News, April 22, 1899.

[5] Harrison attributes the results to the relief of tension. Edebohls and others add to the relief of tension the establishment of a more extended vascular formation with a greater anastomosis. Ries, Bernays and others do not place any weight on the new vascular formation. Zeit of Chicago says the kidney regenerates function quite rapidly if tension is removed. Ries made sections of two kidneys and found no increased blood supply. Israel says concerning the mechanism of the operation that an inflamed tissue may be made to retrogress toward the point of health by splitting the affected structures. According to him, new venous anastomoses are formed between kidney and capsule.

In the eye, the operation causes a decrease in the amount of albumin in the lymph channels, thus reducing the liability of deep ocular complications in consequence of lymph and vascular disturbances. This idea is advanced by Oliver and is, in a measure, supported by the writer.

Perchance the free circulating albumin takes on a certain toxic tendency and in this way excites inflammatory reactions in the retina or other eye structures.

[6] Albarran and Bernard found in rabbits a rapid regeneration after the splitting of the capsule. Within two weeks it was reformed and within two months as dense as the normal capsule and not as vascular. The cortex showed superficial lesions, not very extensive. See also La Semaine Médicale, 1902, vol. xxii, p. 215.

Tait of San Francisco, on everting the kidney from the capsule in numerous rabbits, found a dense adherent fibrous mass surrounding the kidney within two months afterward. Johnson, before the California Academy of Medicine and Surgery, in November, 1902, reported a series of experiments in corroboration of the work of Albarran and Bernard.

The death rate for nephritis with fundus complications, especially retinitis, is exceedingly high. The majority of statistics of this kind were taken without reference to the fact whether the kidney lesion was unilateral or bilateral.[7] That we can have a one-sided chronic parenchymatous, interstitial or diffuse nephritis for quite a period of time is to-day a well-recognized and accepted clinical fact. We also know that a small portion of healthy kidney can meet the demands of the economy, and that two kidneys are not necessary to maintain life. Clinicians now tell us that a part or the whole of one kidney may be involved in the aforementioned diseases. True, if one kidney is affected the other is liable to become involved, as the same etiologic factor is present. Often one kidney is rather extensively involved before the other is implicated. However, should only one kidney remain involved, the prognosis as regards life is very favorable, other things being equal. These cases, however, are very rare.

The age of the patient is an important factor as regards the prognosis. Whether a unilateral or bilateral nephritis, the death rate rapidly increases in an inverse proportion to the age, i. e., in the twenties and thirties the death rate is considerably higher than in the sixties or seventies. Again, the mortality is greater in hospital than in private practice.[8]

The fundus complication, too, may be unilateral or bilateral.[9] However, the great majority are bilateral, just as perhaps the kidney lesions are more often bilateral. The fundus lesion serves as an indicator as to the extent of kidney involvement; it also serves the same as regards the prognosis. In this particular it matters little whether the fundus lesion is unilateral or bilateral, though, naturally, the bilateral involvement is the graver. Hence it may be that those with retinal complications who outlive the classical two-year period have had but one kidney involved at the time, or one may have been considerably less involved. Nevertheless, postmortem examinations show ultimately an usual bilateral nephritis and retinitis. The nephritis may exist for some time before albumin is observed in the urine, and in these cases the retinitis is often the first observable diagnostic lesion.[10] The retinal lesion may also be late in appearing, and then, as a rule, the disease makes rapid strides.

It is yet an open question in what manner the fundus and kidney lesions are associated. Traube says it depends on excessively increased arterial tension, yet in many cases there is no cardiac hypertrophy. Weeks and Samelsohn attribute it to a general vascular—both arterial and venous—disturbance which takes place in both organs at the same time. Cardiac hypertrophy[11] is an important factor in the production of the retinal hemorrhages. The theory of auto-intoxication is not to be lightly considered in this particular. Furthermore, we may have a chronic Bright's disease without retinal complications for some time, on top of which an acute attack supervenes with rapid retinal involvement.

We are now in a position to review the results of decapsulation of the kidney in this class of cases. The forecasted conclusions to be drawn from these cases are, to say the least, not encouraging. And, what is more, the cases strikingly illustrate that as yet we have found no cure or even a wholesome palliative measure for any form of chronic Bright's disease with retinal complications.

There are 15 cases, and all except two died in consequence of the nephritis within the two-year period. One of them died from tubercular peritonitis. Of the two still living, the history of one case (No. 14) is very questionable. The other is losing ground.[12] Between the ages of 20 and 40 there were six cases; between 50 and 60 five cases; between 60 and 70 two cases. The age was not given in two. These cases were nearly all in hospital practice and gave a higher death rate than the well-known Belt and Bull[13] statistics (85 per cent. for the first year and 93 per cent. of the remainder for the second year).

It is not necessary to give the detailed history of any of the cases, as they are all about the same as in everyone's practice. In Gradle's case (operated on by Ries) the improvement in the vision was simply remarkable, from 5/200 to 20/90. In the writer's case (seen in consultation with Ries and operated on by him) the vision rose from 20/60 to 20/20 minus and remained so until death. The same in this particular is true of Gradle's case. In Ochsner's case the vision was improved after the first operation. In these 3 cases, which the writer had the privilege of examining, the retinal condition improved remarkably after the operation. In one case (No. 6) before operation, the neuritis was so marked that the disc could scarcely be outlined, while after the operation it was plainly outlined. In the cases operated on by Ries and Ochsner there were no degenerative changes present in the retina. Whether this was so in the other cases could not be ascertained. However, slight degenerative changes did develop after the operation in Cases 6 and 7, as is usual in well-marked cases of this kind. The increase in the field of vision in Case 6 is not very marked, yet it shows a decided improvement (see Fig. 1).

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[7] In order to determine whether one or both kidneys are affected, a urethral catheter or a Harris' segregator must be employed. These methods of examination have been in vogue but a short time. No statistics of albuminuric fundus complications, as regards the mortality rate, have been compiled since. Radiography may, in some instances, determine which kidney is involved, but this method is not very reliable.

[8] Bull, C. S. (Trans. Amer. Ophthal. Soc., 1886), cites a series of 103 cases, 87 per cent. dying within two years; 6 died in the third year, 4 died in the fourth year and one in the sixth year.

Miles, Miley ("The Prognosis of Neuroretinitis in Bright's Disease," Ophth. Soc. U. K., 1888), in a series of 51 cases in which the retinal lesion was determined early, 53 per cent. died within six months.

Haehnle, E.: ("Ueber die Lebensdauer der an Retinitis Albuminurica Erkrankten," Diss. Tuebingen, 1897), found that in a series of 98 cases 56 per cent. died the first year and 68 per cent in the two years. For further statistics see the following: Possanner: "Ueber d. Lebensdauer n. d. Auftreten v. Retinitis Albuminurica," Deutschmann's Beitrage z. Augenheilk., xv, s. 22, 1894.

[9] Cases where one fundus only was implicated for a long time are cited by: Leber: Handb. d. ges. Augenheilk. (Graefe-Saemisch), 1 Aufl., s. 583. Eales, H.: Brit. Med. Jour., 1884, vol. ii, p. 1248. Bull, C. S.: Loc. cit. Weeks, J.: Arch. f. Augenheilk., xxi, p. 54 (Pathology of Ret. Albuminurica). Webster, D.: N. Y. Policlinic, 1894, iii, p. 161. Werhli: Arch. f. Augenheilk., xxxvii, p. 173, 1898. Moore, O.: N. Y. Med. Jour., April 17, 1886.

[10] Hirschberg, Abadie, Gand and Eyre speak of a retinitis before albumin appears in the urine as "prealbuminuric retinitis." (Quoted by Groenouw and Uhthoff in Graefe-Saemisch Handb. d. ges. Augenheilk., 2d Ed., vol. xi, chap. xxii, p. 96.

[11] Bull, C. S., found, in a series of 18 cases, 12 with cardiac hypertrophy which had retinal hemorrhages (Amer. Jour. Med. Sc., 1873, p. 37). Litten has made the same observations as Bull. The writer has about the same experience.

[12] Reported to have died in June, 1903.

[13] The combined number of cases in the Belt and Bull statistics is 258. Of these 153 died within the first year, 88 within the second year, leaving only 17 cases to live longer.

STATISTICS OF CASES OF DECAPSULATION OF THE KIDNEYS.

Number.	Age, Sex.	Date of Diagnosis.	Kidney Lesion, Single or Bilateral.	Fundus Lesions.	Date of Last Operation.	Vascular Condition and Heart.	Immediate Result.	Final Result.	REMARKS.	Surgeons.
1	M., 67	June, 1901	Bilateral interstitial.	Retinitis albuminurica.	6, 14, '02.. .	Mitral regurg., arteriosclerosis.	Died 48 hours later.	Fatal	Cause of death, uremia. Edebohls' case No. 39.	Edebohls
2	M., 62	Jan., 1902	As above . .	Ibidem.. . . .	5, 26, '02.. .	Aortic murmur and mod'rate hyper.	Died within 12 hours.	Fatal	Acute dilatation of heart the cause of death. Case No. 34.	"
3	M., 56	May, 1901	As above . .	Neuroretinitis	5, 26, '02 . .	Cardiac hyper. and arteriosclerosis.	Improvement..	Died on Nov. 6, '02; lived 5½ months.	Both the eyes and kidneys were *markedly* improved; relapse set in. Case No. 35.	"
4	M., 21	Dec., 1900	Bilateral diffuse.	Retinitis albu. V=1/200 in each eye.	4, 16, '02.. .	Cardiac hyper. and aortic stenosis.	Vision marked improvement, kidney also.	Died 1, 18, '03	Improved for 5 mos. especially, lived 9 mos. after operation. Case No. 27.	"
5	M., 50	Apr., 1901	Bilateral interstitial.	Optic neuritis, temporary blindness.	5, 26, '02.. .	Heart on verge of dilatation, hyper. also.	Died within 12 hours.	Fatal	Very desperate case—paresis.(?) Case No. 36.	"
6	F., 22	Mar., 1901	As above . .	Neuroretinitis, hemorrhages. V=20/60.—	3, 30, '02.. .	Hypertrophy, cardiac.	Both organs improved and rem'ned imp.	Died 8, 10, '03, tub. perito's, lived about 5 months.	Albumin disappeared entirely for a time, vision rose to normal, field enlarged, kidneys operated on at two sittings; albumin returned later on.	Ries & Suker, Chicago.
7	M., 36	Aug., 1902	As above . .	Neuroretinitis and hemor. V=5/200.	9, 1, '02 . .	Cardiac hypertrophy.	Marked improvement in eyes and kidney. V=20/90.	Died Dec., '02, lived about 4 months.	Cause of death uremia.(?) Dr. Gradle said field enlarged remarkably, so did the acuity. Segregator used in Nos. 6 and 7.	Ries and Gradle, Chicago.
8	F., 30	Apr., 1900	Bilateral interstitial.	Neuroretinitis more marked in one.	Oct., 1902 .	Hypertrophic heart.	Eyes did not change, rather grew worse.	Died Jan., '03..	In this case a choked disc developed after first oper., vision decreased markedly.	O. Dodd and Ochsner Chicago.
9	(?)	Prior to 4, 10, '02	Bilateral interstitial.	Neuroretinitis	About 4, 10, '02.	Not given.. . .	Improvement..	Still living, 4, 22, '03.	General condition improved, recurrent hemorrhage into retina and more mosaics.	C. A. Oliver, Philadelphia
10	M., 50	Prior to Apr., 1902	Bilateral interstitial.	Albuminuric retinitis.	April, 1902.	Not given. . .	Eyes not improved much.	Lived 7½ mos. 11, 1, '02.	Was a desperate case from the beginning.	A. C. Bernays, St. Louis.
11	M., 20	About 1 year ago	Bilateral interstitial.	Mild optic neuritis with few hemorrhages.	11, 10, '02 .	Cardiac involvement.	Temporary improvement.	Died 11, 17, '02.	Dr. O. performed a decapsulation on one kidney prior to 11, 10, '02; died of acute suppress. of urine and uremia	Ochsner and Suker, Chicago
12	(?)	. . . . .	As above	Album. ret., glistening spots (not characteristic). V reduced.	. . . . . .	Cardiac hypertrophy.(?)	Died within a few days (4 days).	Fatal	Was a desperate case, almost moribund when brought to hospital.	Munro, Boston.
13	M., 29	Jan. 15, 1903.	As above . .	Silvery spots in macula. light streaks along arteries, V *poor.*	1, 27, '03.. .	Not given(?) . .	Improved for a time.	Losing ground rapidly. Died *in June 1903.*	General condition improved some but eye symptoms not as a subsequent examination showed.	Munro.
14	M., 51	1885(?) . .	Bilat. chron. diffuse.	Failing eyesight, ret. album.(?)	6, 2, '02. . .	Varying am'ts of edema.	Good	Improved, living, 1, 19, '03, eyes no report.	This is Dr. Edebohls' case No. 37. (If this is a true case of retinitis albuminurica of so many years standing, it is one of the wonders.—G.F.S.)	Edebohls.
15	M., 23	Dec. 21. 1901.	Bilateral interstitial.	Sudden blindness, Dec., '01	4, , '92.. .	Mitral regurg., hypertrophy heart.	Not good; lived 8 days.	Died 4, 19, '02..	Died of uremia and exhaustion. Case No. 24.	Edebohls

1. The record "*fatal*" means that the patient died within 8 to 72 hours after the operation. The majority were bilateral decapsulations. Ries and Ochsner operated on one kidney and later on the other. Edebohls usually decapsulated both kidneys at one sitting.

2. C. A. Oliver is conducting a series of experiments to determine the effects of the operation on the amount of albumin in the aqueous humor.

3. Cases Nos. 6 and 14 can be excluded in drawing definite conclusions, because No. 6 died of an intercurrent disease and No. 14 has lived so long with a supposed albuminuric retinitis that perhaps the retinal trouble is of a different nature (advisedly stated).

4. The visual fields were taken in Ries and Ochsner's cases. In all (3 cases) it increased after operation.

5. The writer had the privilege of examining and watching the cases of Ries, Gradle and Ochsner, both before and after operation. These were typical cases in every particular, and therefore of great value in this statistic.

6. Some cases had blood casts, most of them presented hyaline and granular casts, a few had erythrocytes in the urine.

7. Ries has made many microscopic sections of the kidney after operation, but failed to find increased vascular anastomosis. Zeit, ibidem (personal communication).

8. The operation did not prolong life. The medical treatment offers a better *percentage* as far as prolonging life is concerned.

9. Since reading this paper the writer has obtained 4 more cases which were typical and submitted to the operation; they died within a few months thereafter.

10. Excluding the two cases, Nos. 6 and 14, the mortality rate is 99 per cent. What a showing in 17 cases!

NARRATION OF CASE.

Mrs. L. (operated on by Dr. Ries, Chicago).

Diagnosis.—Neuroretinitis albuminurica; chronic interstitial nephritis with rather marked cardiovascular implications.

Fundus Findings.—Disseminated albuminuric spots of the inflammatory type throughout the retina; the veins were engorged and the arteries very much attenuated. The retina was spattered with small flame-shaped hemorrhages. The macular region was fairly free. The optic disc was very imperfectly outlined, due to the neuritis and the swelling; it equaled about 2 mm. Both eyes were about alike as to the changes present. V.=20/60 in each eye March 29, 1902. The field of vision *on this day concentrically* contracted as seen in the chart (Fig. 1).

April 23, 1902 (not quite four weeks after the capsulotomy) the nerve head could readily be outlined. The retinal hemorrhages had disappeared and the whole retina was greatly improved. The field of vision was materially enlarged (Fig. 1) and the acuity was: O.D.V. 20/40+3. O.S.V. 20/40+2.

At time of death (August, 1902) she was reported to have had practically normal vision. The cause of death was peritonitis. (For further particulars as regards the disappearance of albumin and its return after the operation in this case see reports of Ries.)

The period of time that is regarded necessary to pass before the operation is considered as having produced a cure is six months, according to Edebohls. At the end of this time the urine must be free from albumin and remain so. But few of the cases with retinal complications outlived this period. The majority improved to some extent, both as to vision and urine, still the relapse came on rapidly in both organs and the patients died. True, in a few instances the improvement of the eye condition was almost miraculous. We know that even with the medicinal treatment marked temporary improvements take place and may even continue for some time. All the cases with eye symptoms, except one, died within the first year. The greater share, if not all, had a bilateral kidney and eye lesion and perhaps always bilateral at death. The majority gave decided evidences of cardiac involvement. The kidney lesion in each instance was a *chronic interstitial or diffuse nephritis*, or an acute attack on top of a chronic condition. The successes so far reported for decapsulation were for the uncomplicated chronic nephritis. Whether or not the operation in any way hastened the exitus in the cases reported here is certainly very problematical, for they nearly all came, as it were, under the "two-year clause." The operation, in competent hands, is practically devoid of any dangers (kidney and life).

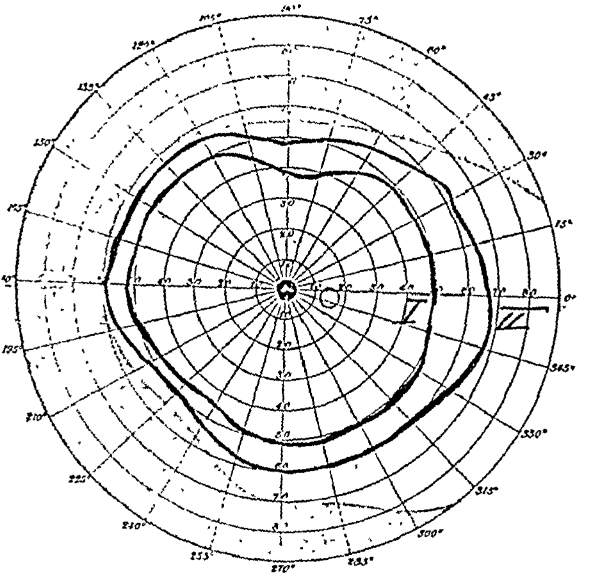

Fig. 1.—Mrs. L. I. Visual field on March 29, 1902, two days prior to the operation. II. Visual field April 23, 1902, about four weeks after the operation. The left field is practically the same as right. No scotomata in either field.

The mere fact that the general condition of the patient improved slightly after the operation does not establish its validity. For we know that often in not doing anything, excepting advising hygiene, marked improvements both as to sight and kidney take place.

If we could have an interstitial nephritis definitely limited to one kidney, though with more or less fundus involvement, the operation might, if performed early, be of great benefit. This can be partially supported by the fact that some uncomplicated cases of nephritis have survived the operation for a period of 3 to 10 years (see Edebohls). Knowing that the retinal manifestation indicates a very firm establishment of the nephritis and that a serious cardiac involvement is almost a constant factor, it does seem that the operation offers no ray of hope, either as a cure or as a permanent amelioration. The statistics pertinently show this point to be true. As fundus complications are so frequent in interstitial nephritis, it may be asked whether kidney decapsulation will prevent them if done very early. This is problematical. The exact limits beyond which the operation in any case, simple or complicated, will or will not fail to accomplish any good has not been determined. As far as albuminuric retinitis is concerned, all that can be said is that the results have been decidedly temporary, and this in nearly every instance.

In conclusion, we may recapitulate as follows:

1. The operation of decapsulation so far is not warranted in all instances, nor does it offer any hope in cases of bilateral chronic nephritis with retinal complications.

2. Though there is an improvement in the eye ground directly after the operation, still it is decidedly temporary, judging from the present statistics.

3. *The operation may be of service in unilateral* nephritis with fundus lesions in the initiatory stages. These cases, however, are rare, and, if found, soon become bilateral. Therefore, these latter cases would come under the first remark.

4. The mortality rate for albuminuric retinitis in chronic nephritis has not been lessened by the operation.

5. The statistics show that retinal complications are a decided index as to the severity of the kidney involvement.

6. In nearly all the cases of nephritis chronica the cardiac involvement is present and is an important prognostic factor. With the retinal lesion, it is usually present.

7. Unilateral retinal lesions are the exception in chronic nephritis.

8. As yet the medical treatment of all these cases yields as good results, if not a trifle better, than the kidney decapsulation.

9. Statistics of the mortality rate of albuminuric retinitis based on urethral catheterization are indicated. This is to determine whether those that outlive the two-year period might be cases of unilateral nephritis or are late in becoming bilateral.

The writer wishes to take this opportunity to express his gratitude to the various gentlemen who answered the circular letter in reference to this subject. In particular does he wish to acknowledge the courtesies of Drs. Ries, Gradle, Ochsner and Dodd of Chicago, Oliver of Philadelphia, Munro of Boston, Bernays of St. Louis, and Edebohls of New York.

DISCUSSION

ON PAPERS OF DRS. STRICKER AND SUKER.*

Dr. Henry Dickson Bruns, New Orleans—Dr. Stricker is entirely right in holding that the proportion of urea excreted in the urine is of far greater significance than the presence in the same fluid of more or less albumin. The general practitioner was somewhat slow in recognizing this truth and making practical use of it; it is not to be wondered at, therefore, that the oculist should have been still slower. To-day, however, I believe that all physicians of the first rank accept and act on it in the study and treatment of their cases of renal disease. They all, too, hold to the belief that it is the retention of the excrementitious products, of which the urea in the urine is the expression, that produces the lesions found during disease of the kidneys; the escape of albumin into the urine being a symptom of more or less importance according to the *presence or absence of a host of other phenomena*. Nor have the ophthalmologists followed far behind, as the passage cited by Dr. Stricker from Professor Leber, published twenty-six years ago and containing a citation from Von Graefe, plainly shows. Dr. de Schweinitz,[1] quoting J. B. Lawford, says: "Uremic amaurosis may occur in any of the various forms of renal disease in which there is sufficient interference with the function of the kidneys to load the blood with those poisonous materials, whatever their exact nature may be, which induce the uremic condition." And, again, that retinitis, retinal hemorrhages, etc., may precede albuminuria by a considerable time. It is probable, as Dr. Sutton suggests, that these are examples of granular kidney, in which albumin is absent, or only present to a very small extent until a later stage of the kidney affection. On the other hand, the lesions which I have described as occurring in the blood vessels, particularly various types of perivasculitis, and of "silver-wire" arteries, producing compression on underlying and overlying veins, are often present for long periods before the renal lesions are manifest, or at least before the other signs of renal disease are fully established; that is, albumin and casts. These expressions certainly indicate a belief that the excrementitious products are the injurious agents. So in a paper by Dr. S. C. Ayers[2] we read: "The question of the diminished excretion of urea is not a new one. Dr. S. Marx,[3] in a very interesting paper, states that this condition arises not from albumin, but from diminished excretion of urea. He states that many women with grave nephritic disease go to full term with little or no discomfort. He further states that albumin and casts have no meaning for him in the presence of a normal urea excretion, for with that he is in a position to know that sufficient of the effete products are being excreted and the condition of the safety valve in the engine of the body is evidenced by the behavior of this element. Whether this urea is really the offending agent or not, modern investigation does not allow us to state with any degree of positiveness. It is enough to this end to state that when there is a lessened secretion the patient suffers, and when hypersecretion occurs the patient is freed from those symptoms to us indicative of toxemia. Dr. E. E. Morse of Washington, D. C., endorses the theory of Dr. Marx. Dr. Stricker, then, deserves our thanks for bringing this subject to our attention at this meeting and emphasizing the necessity of observing whether or not the vision and other ocular symptoms vary with the fluctuations of the amount of urea excreted. His position as to the indications in the albuminuria of pregnancy seems eminently correct, but one must not be too sure that in every such case "the kidney disease will subside quickly after labor is terminated." I once saw a case where albuminuria had been recognized only after the pregnancy had begun. Shortly after the birth of her child the patient became quite blind, and I was called in. The eyes showed typical Brightic changes. The patient did well for a few days, but then fell into convulsions and coma, and died. The fact that vision may improve even to the normal in any form of Brightic retinitis, although there may be little, if any, change in the ophthalmoscopic appearances, may now be taken as established. A case (No. 11) reported by Dr. C. S. Ayers[2] would go to prove that even extensive degenerative changes may clear up, though this is unusual, if time enough be afforded. In Dr. Ayer's case the patient had had nine pregnancies. In the fourth, fifth, sixth, seventh and ninth there had been failure of vision. Premature delivery occurred in the seventh month of the ninth pregnancy, and her eyes were examined some time after; the right equaled 0.1 and the left equaled 0.7. There were characteristic alterations in each eye and numerous white patches in the retina of the left. Twelve years afterward he found the right eye perfect; L. E. V. equaled 20/xl, but with +0.75 cyl. ax. 110 degrees it equaled 1. The retina looked normal and healthy, and there was no trace of patches. While there is no etiologic connection established between senile cataract and albuminuria in premature cataract—cataract occurring in middle life—the urine should always be examined. Finally, perhaps, I may be permitted to say that while pathologist of the Charity Hospital, as many as ten years ago, the fallacious nature of albuminuria as an evidence of renal disease was forced on my attention by the not infrequent finding of casts in urine showing freedom from albumin by the most delicate tests. In a series[4] of 2,441 first examinations, casts without albumin were found 40 times—about once in 61 times. The kinds of casts were: Epithelial in 1 instance, granular in 4, hyaline in 14 and unrecorded in 21 instances.

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* The paper of Dr. Stricker appeared in The Journal February 20, p. 514.

Dr. Allen Greenwood, Boston—A large number of these cases should be considered from the standpoint of arterial degeneration, rather than from the standpoint of kidney disease. I classify my cases in two groups: one, the aged people with general arterial degeneration, in whom you find degeneration of the arteries of the retina and choroid sometimes before there is evidence of kidney lesion; and the other, in the young and middle-aged, where you have distinct chronic parenchymatous nephritis with retinal changes and death in a few years. In the last twelve years I have seen 26 cases in private practice, and have followed all but 2 to the ultimate end. Out of the 26 cases only 3 are living, and none of the 3 living was seen prior to two and a half years ago. I think physicians and surgeons make a mistake in not having the eyes of their patients examined more frequently. All the cases of kidney disease at the Boston City Hospital are, during my service, referred to me for ocular examination. Just before death retinal changes are nearly always present.

Dr. Leartus Connor, Detroit—Why is it that we have patients with deficient excretion of urea, and with albumin and casts in the urine, but yet it is only occasionally that we have these ocular complications? What is in these particular cases different from the others? I do not think we can answer the question except by referring it to the personal equation of the individual, something in the structure of the retina of the one. This is yet to be worked out. The same thing confronts us in many other morbid conditions. Why should there be this difference in urea excretion? What are these excrementitious products? What are these toxins? We have known for some time that in a pregnant person such ocular complications mean death in a short time, but why the complications occur in one individual and not in another, we do not know.

Dr. Edward Jackson, Denver—I think there can be no question as to agreement with Dr. Stricker that not albumin, but deficient elimination of urea, is the factor of importance. My experience would point out that why one patient has retinal lesions and another has not depends on the condition of the general vascular system. I have never seen a typical case of albuminuric retinitis without involvement of the vessels generally. But sometimes where I have found slight lesions of the disc and retina and decided changes in the vessels, careful and repeated examination has failed to show any changes in the urine. The retinal lesions are associated with vascular changes. This leaves a small loophole for the surgeons who urge decapsulation. The cases that present retinal lesions are evidently not saved, so far as our statistics indicate; but possibly there is a class of cases of chronic nephritis that do not have retinal lesions and are not liable to have them, that may be helped by the operation. But so far as those cases are concerned about which we can form a prognosis, his paper indicates that they are not permanently helped.

Dr. G. E. de Schweinitz, Philadelphia—While it is true, in general terms, that ocular lesions may occur with any form of nephritis, the various types of retinitis are most frequently associated with chronic interstitial nephritis (that is, with renal sclerosis), whether this is an independent primary affection, or whether it is a sequel of arteriosclerosis. It seems to me undoubtedly true, as Samuel West has recently insisted, that a sharp distinction should be made between the degenerative and exudative forms of albuminuric retinitis. The former indicate the presence of chronic granular nephritis, and the degenerative changes depend on vascular alterations. The latter indicate a chronic parenchymatous nephritis and probably depend on an inflammatory or toxic influence. To put this in other words, albuminuric retinitis of the degenerative type is a symptom of vascular changes, which in their turn are widespread throughout the body, and not necessarily a symptom of kidney disease itself as an isolated condition; that is, the nephritis and the retinitis are both caused by the vascular lesions. Doubtless, Dr. Jackson is correct in stating that in the great majority of instances it is possible, ophthalmoscopically, to see lesions in the retinal vessels no matter what the type of the so-called renal retinitis may be, but none the less I am persuaded that the distinction before referred to is worthy of consideration.

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[1] "Ocular Manifestations in Chronic Bright's Disease," Proceedings of Phil. Co. Med. Soc., 1902.

[2] Cincinnati Acad. of Med., April 14, 1902; Amer. Jour. Ophth., October, 1902.

[3] Med. Record, April 20, 1901.

[4] "Notes on Examination of the Urine," by H. D. Bruns, M.D., Med. News, Sept. 7, 1895.

DR. O. A. GRIFFIN, Ann Arbor, Mich.—A recent case of albuminuric retinitis proved interesting because of its sudden development and early termination. A woman about 60 years of age had her hip fractured and her physician made repeated examinations of her urine with negative results. About five months later she became suddenly partially blind, the condition being attributed to a general debility. Two weeks later I was called and found that the vision could not be materially improved by lenses. An examination revealed the characteristic fundus changes, and on testing the urine a large amount of albumin was found. The case was then referred back to her physician, but treatment was of little avail, death occurring within seven months.

DR. LOUIS STRICKER, Cincinnati—I would not like to leave any one under the impression that I do not recognize that a certain number of cases are the results of vascular changes. They result from the general vascular fibrosis, which is present all over the body, but I believe that the majority, including most typical cases, are not those of vascular changes, but are consequent on toxemia. I might say that the fibrosis is in all probability due to toxemia. True, where we get closure of the vessels, it is but natural that necrotic changes and hemorrhages follow, but the typical conditions are due to toxemia. Recently a woman came to me with a pure neuritis. I found her urea quantity one-tenth normal, and put her on treatment for Bright's disease, sweating her freely. This was not a typical case of neuroretinitis Brightica, but while she was under treatment in the hospital, as I observed her from day to day, this typical picture did develop. In spite of the treatment, the necrotic conditions went on. This was not a vascular change, but was undoubtedly the result of chemical irritants in the blood, the pure toxemia. These toxins do not come from the kidneys. The supposition is that they are the result of an imperfect metabolism, a break in the chain leading up to a perfect conversion of proteids into uric acid and urea in the liver. Where this conversion is interfered with, the toxins develop. Just what these are we are unable to state, but one thing is sure: when urea fails of perfect excretion from the kidneys, either this as such or the toxins produced remain in the system and are the causative factor of inflammation. I would again repeat, greater stress is to be laid on the reduction of the urea below the normal in the urine than on the presence of albumin; and this is a point which all text-books on the eye fail to recognize. Albumin in the urine simply indicates that the kidneys permit it to escape; that they are diseased, but loss of albumin does not produce eye disease. These diseases, I take it, are not the result of anemia, but of chemical irritants or poison circulating in the blood. One of the latest works on obstetrics advances the idea that the Bright's disease of pregnancy is due to the impaired action on the part of the liver. I do not see how the taking off of the capsule and tearing the kidney tissue is going to do any good. I appreciate that the removal of tension can give the kidney a chance to regain its function, but this could only be of service in acute cases; beside, the operation is surely an extremely dangerous one, and I, for one, would hesitate to use it.

DR. GEORGE F. SUKER, Chicago—Dr. Edebohls is operating on a great variety of cases, including even puerperal eclampsia. Whether or not the operation is indicated in all the classes of nephritic lesions is certainly an open question. One must carefully weight the advisability of suggesting the operation in any form of albuminuric retinitis. From the statistics given in the paper, one can hardly see any justification for the operation in chronic forms of nephritis with retinal lesions. The operation has not been tried in a sufficient number of cases of acute nephritis with retinal lesions to be of any value in deciding its justification. Again, the indication for the operation must to a certain degree depend on the fact whether the Bright's disease is a pure nephritic lesion or is due to a general arteriosclerosis. If the latter, the operation can accomplish little; but a good deal if due to the former cause. As yet, it is too early to render a final opinion whether the operation is justifiable in cases of nephritis with fundus lesions. Still, we have no right to discard the operation without giving it a fair and extended trial in well-selected cases.

SOME REMARKS CONCERNING THE OCULAR AND AURAL REQUIREMENTS OF RAILROAD EMPLOYES.[*]

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CHICAGO.

Some three years ago the Interstate Commerce Commission published an interesting report of railway accidents occurring in the United States in one brief year. There is no reason to suppose that this was an especially unfortunate year, and as the figures are instructive and full of significance, I will quote some of them.

The total number of personal accidents was 51,743, and of these 7,123 were killed, 2,210 being railway employes; 334 employes were killed and 2,153 injured by collisions and derailment, and 82 passengers were killed and 1,557 passengers injured from the same cause.

The causes of these accidents are doubtless numerous, but have not been, so far as I am aware, statistically enumerated, although such tabulation would be most interesting and instructive. A small minority of the accidents were perhaps in the ordinary course of events unavoidable, but a large majority were probably preventable, and due to carelessness or physical defects on the part of train operators. Of such physical defects it is reasonable to suppose that ocular and aural defects, especially the former, played a most important part, for no physical condition, except the mental condition, is so intimately connected with the moving of a train as vision. The eyes are continually in service—watching for signals, both luminous and non-luminous, looking at the track and searching for approaching trains, familiar objects, etc., etc. In short, there is not a moment during the active operation of a train that the engineer and his fireman have not a vital interest in good vision, and the same is true in a mitigated sense of the conductor, brakemen, switchmen, bridgemen, etc.

I am confident that if statistics could be gathered of the accidents caused by bad eyes, even for a single year, the showing would be so appalling that every intelligent railway official would require no further incentive to perfect the ocular status of his men.

In order to ascertain what was being done to regulate this important essential to transportation security, some years ago a committee, of which I was chairman, was appointed by the Section on Ophthalmology of the American Medical Association, to investigate this matter and report back to the Section. Owing to many obstacles, the Committee was not able to report finally until the year 1901 at the St. Paul meeting of the Association. Meanwhile we gathered statistics which have proven of immense value in placing the work on a solid foundation.

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[*] Read before the American Academy of Railway Surgeons, Oct. 1, 1903.

Letters of inquiry and a question blank were sent to every railroad in North America possessing over 100 miles of road, and 244 companies were thus addressed, operating a total of 205,638 miles. One hundred and twelve roads replied, aggregating 147,838 miles of road. These figures represent almost all the large systems, for those not replying were principally the small railroads, many of whom have now been merged into the larger systems. I found that out of 112 roads, 77 require some kind of a systematic eye and ear examination of those employes who are actively engaged in running trains and in giving and receiving signals; 29 of the roads require such examinations to be made by regularly appointed railway surgeons; 31 allow various kinds of railway employes to make the examinations; 9 roads send doubtful cases to an eye and ear surgeon; 16 roads require examinations to be made by regularly appointed eye and ear surgeons, and 4 allow such examinations to be made by the medical directors of railway associations.

In answer to the question: "Do you require re-examination from time to time, and if so at what interval or under what circumstances?" I find that 1 road requires re-examination every six months; 7 roads require re-examinations every year; 21 roads every two years; 9 roads every three years; 2 roads every four years; 19 roads require re-examinations when it is deemed advisable, and especially on promotion and after accidents and illness; 3 roads require re-examination on promotion only.

Concerning the question: "Do you require perfect vision, color sense and hearing in new employes, and what concessions do you permit from a perfect standard in the case of old employes?" I find that 26 roads require perfection and allow no concessions to old employes; 41 roads require perfection from new employes and allow, according to circumstances, various concessions to old employes.

Concerning the question: "How long must a man work for your road before you call him an old employe?" I find that 2 roads call a man an old employe as soon as he is enrolled in the service; 7 roads require one year service; 3 roads two years' service; 12 roads three years; 12 roads five years; 7 roads ten years; 3 roads fifteen years.

Concerning the question: "Do you permit old employes to wear glasses for distance when on duty?" I find that no road allows new applicants to wear glasses for distance in order to bring vision up to a normal standard; 74 roads allow old employes to wear glasses for distance; 12 roads do not allow glasses to be worn for distance at all.

The report of the committee which was presented at the St. Paul meeting was as follows:

SECTION 1. The essential principle to be advocated is that railroad corporations shall require a scientific and correct examination of the eyes and ears of those employes at all to be concerned with the active operating of trains, or in giving or receiving signals.

SEC. 2. Such primary examinations should, whenever possible, be made by regularly appointed eye and ear surgeons, and this fact is emphatically urged, especially as the expense of a first examination may always be borne by the applicant; but if such a course is not deemed expedient, the company's surgeon, aided by his medical assistants, might conduct them, with the understanding that all doubtful cases shall be sent to a regularly appointed eye and ear surgeon.

SEC. 3. There shall be two general standards of visual and aural requirements, viz.; those for new men hoping to enter the service, and to be actively engaged in the operation of trains, and in giving and receiving signals; and, secondly, those men engaged in similar work, who have been uninterruptedly in a company's service for five years, and who have, therefore, a right to be called "old" employes.

SEC. 4. New men shall be required to possess perfect color sense. They shall also have a vision of 20/20 in each eye, without glasses, and have healthy eyes, and not over one diopter of hypertropia. They shall also hear the whispered voice at 20 feet in a quiet room, and have healthy ears.

SEC. 5. For the purpose of graduated requirements, old employes shall be divided into two classes, as follows: Class A—Engineers, firemen, conductors, brakemen, switchmen, signalmen, switchtenders and engine dispatchers. Class B—Track foremen, bridge foremen, crossing flagmen, bridgetenders, gatemen, train baggagemen, telegraph operators, station agents, and station baggagemen.

Employes enumerated in Class A shall not be retained in such positions if vision sinks below 20/30 in one eye and 20/40 in the other, or if the whispered voice can not be heard in a quiet room at 15 feet by one ear and 10 feet by the other. Employes enumerated in Class B shall not be retained in such positions if vision sinks below 20/40 in one eye and 20/50 in the other, or if the whispered voice can not be heard in a quiet room at ten feet by both ears. Employes, and especially engineers and firemen, enumerated in Class A must reach the visual standard without glasses and will not be allowed to wear distance glasses when on duty. Employes enumerated in Class B may reach the visual standard with glasses, and will be allowed to wear glasses when on duty, and will be required to do so if the wearing of glasses is necessary to bring vision up to the proper standard, and shall always be required to carry an extra pair of glasses when on duty, in case of accident to one pair. All employes shall have perfect color sense.

SEC. 6. Re-examination shall be made of all men every three years, and after a severe illness, or accident, or any occurrence which seems to cast doubt on the visual and aural capacities of the individual. Re-examinations shall also be made more frequently on men known to be excessive users of tobacco, or to be suffering from syphilis, albuminuria, diabetes, or acute or chronic eye and ear diseases. Men shall always be re-examined before promotion.

SEC. 7. Men known to be excessive users of liquor shall not receive employment.

This report was adopted by the Section on Ophthalmology, and the Committee requested to present it to the House of Delegates of the American Medical Association at its next meeting at Saratoga, which was accordingly accomplished. Owing to some diversities of opinion, the resolutions as presented in the Section on Ophthalmology had to be remodeled in order to insure their passage. The resolutions as remodeled, I now beg leave to present:

SECTION 1. It is essential that railroad corporations should require definite and scientific examinations of the sight and hearing of those employes who will be at all concerned with the active operating of trains or in the giving or receiving signals.

SEC. 2. Such examinations should, whenever possible, be made by regularly appointed eye and ear surgeons; and in all cases be conducted according to the instructions, and under the supervision of a regularly appointed eye and ear surgeon, and with apparatus and under conditions approved by him, and all doubtful cases should be referred to him for personal examination.

SEC. 3. New men should be required to hear the spoken voice at 20 feet in a quiet room, and have healthy ears.

SEC 4. The acuteness of vision should be tested by the test types of Professor Snellen, or those which conform to the standards.

SEC. 5. The following minimum requirements should be adopted for acuteness of vision:

CLASS A.		
	ENTRANCE TO SERVICE OR PROMOTION.	RE-EXAMINATION OF THOSE IN THE SERVICE.
Enginemen (road service). Firemen (road service).	20/20 in each eye tested separately without glasses.	20/30 with both eyes open, without glasses. Each eye should also be tested separately and the vision of each noted.
CLASS B.		
Other employes in the engine, train or yard service, and car and engine inspectors.	20/20 in one eye and not less than 20/40 in the other, tested separately without glasses.	20/40 with both eyes open without glasses. Each eye should also be tested separately and the vision of each noted.
CLASS C.		
Towermen, telegraph operators, station agents, section foremen.	20/20 in one eye and not less than 20/40 in the other. Tested separately with or without glasses.	20/40 with both eyes open, with or without glasses. Each eye should also be tested separately and the vision of each noted.
CLASS D.		
Crossing Flagmen.	20/40 with both eyes open, with or without glasses.	20/50 with both eyes open, with or without glasses.

SEC. 6. The color perception should be tested by means of the colored worsteds of Professor Holmgren, preferably with worsteds tagged with the purpose of record; also, that in every case an additional test should be made with a lantern showing a number of colored lights, which can be varied in their size and intensity.

SEC. 7. (*a*) Employes enumerated in Class A must reach the visual standard without glasses and should not be allowed to wear distance glasses when on duty.

(*b*) Employes enumerated in Classes B, C and D should be allowed to wear glasses when on duty, and should be required to do so if the wearing of glasses is necessary to bring the vision up to the proper standard. They should also be required to carry an extra pair of glasses when on duty, in case of accident to one pair.

(*c*) Employes enumerated in Class A should not be retained in such positions if the vision sinks below 20/30 with both eyes open, or if the spoken voice is not heard in a quiet room at 15 feet.

(*d*) Employes enumerated in Classes B and C should not be retained in such positions if the vision sinks below 20/40 with both eyes open, and Class D, whose minimum standard should be 20/50; or if the voice can not be heard in a quiet room at 10 feet by both ears.

SEC. 8. There should be two general standards of visual and aural requirements, viz.: One for men hoping to enter the service, and to be actively engaged in the operating of trains, and in giving and receiving signals; and one for those men engaged in similar work who have been uninterruptedly in a company's service for five years, either the company from which employment is sought, or some other company enforcing similar regulations. These latter may be regarded as old employes.

SEC. 9. Re-examinations should be made of all such employes every three years; and after any severe illness, or accident, or any occurrence which seems to cast doubt on the visual and aural capacity of the individual. Re-examinations should also be made more frequently on men known to be excessive users of tobacco, or to be suffering from syphilis, albuminuria, diabetes, or acute or chronic eye or ear diseases. They should always be examined before promotion.

SEC. 10. Men known to be excessive users of liquor should not receive employment for the services above designated (Section 5). The co-operation of the employes themselves should be sought by regulations that will encourage them to report promptly any temporary impairment of vision or hearing.

These resolutions have been sent to every railroad in North America, and have already accomplished an immense amount of good. Many companies which have never taken up this work at all, have expressed a determination to put it into execution at once, and others who have been using inferior methods express themselves as intending to improve such methods along the lines indicated.

There are a few important points of difference between the report of the Committee adopted by the Section on Ophthalmology and that adopted by the House of Delegates of the American Medical Association. For instance: In Section 2 the Section on Ophthalmology report reads: "Such primary examinations should, whenever possible, be made by regularly appointed eye and ear surgeons," etc. The same section as adopted by the House of Delegates, reads: "Such examinations," etc. The Section on Ophthalmology felt that it did not wish to draw the lines too hard on the railroads, and therefore use the word "primary," feeling that if the first or entrance examinations were made by the company's eye and ear surgeon, that the subsequent examinations might with reasonable safety be left with the company's surgeons for execution, with the understanding that doubtful cases would be referred to the company's eye and ear surgeon for decision.

Section 3 of the Section on Ophthalmology report corresponds with Section 8 of the House of Delegates' report, and I have no hesitation in saying that I regard one feature of the latter report as superior to the former, viz., the clause which refers to the interchangeableness of positions from one road to another whose requirements are similar, without losing the right to be regarded as an old employe. I am convinced that a man who has undergone primary examinations for one road and been accepted and placed at work, should be able to go to work for another road whose physical requirements are essentially similar, without losing the benefits of his time privileges. This feature of Section 8 of the House of Delegates' report I cordially indorse and hope it may become generally operative.

I find no reference in the House of Delegates' report concerning the requirements for the color sense except as found in Section 6, which contains nothing of an obligatory or mandatory character. The only explanation for this omission is of course the presumption that it is an oversight, and I should recommend that a clause be inserted in Section 5 of House of Delegates' report, after the words "acuteness of vision," to read as follows: "It being understood that all employes at all concerned in the active operating of trains, and in giving or receiving signals, should have perfect color sense."

Under Section 5, House of Delegates' report, under the requirements for re-examinations of those in the service "belonging to Class A," it says: "That the employe shall possess a vision of 20/30 with both eyes open, without glasses. Each eye should also be tested separately and the vision of each noted." This opens a wide avenue of discussion. The report of the Section on Ophthalmology concerning this same point, says that "Employes enumerated in Class A shall not be retained in such positions if vision sinks below 20/30 in one eye and 20/40 in the other." In other words, a reasonable standard is required of each eye, and it seems as if this must appeal to the judgment of anyone at all familiar with such work. Would anyone in this society care to travel on a train at the rate of 50 or 60 miles an hour with an engineer wearing a glass eye? I think not; the idea is untenable, and yet this is exactly what the House of Delegates' report permits, for it says that vision must be 20/30 with both eyes open. To be sure, it also says: "Each eye should be tested separately, and the vision of each noted," but it goes no further. It does not inflict any penalty in case an engineer has one blind eye. While disposed to be most liberal with the old employes of a road, and while recognizing its advisability and almost necessity if good service and freedom from labor union complications are to be encouraged, I still can not indorse the idea of testing with both eyes open, and of ignoring the condition of a man's worst eye. The idea is evidently conceived from the action of the International Congress, which met in Amsterdam in 1879, and which in formulating rules for the ocular condition of transportation employes, under the guidance of Professor Donders, repeatedly speaks of testing with "both eyes open." This was evidently recommended, because it is well known that one eye assists the other to see, and the Committee desired to treat all employes with all possible clemency, but they did not in their recommendations ignore the condition of either eye. For instance, in the case of engineers and firemen, while visual acuteness with both eyes open must be normal, still the worst eye must have visual acuteness of not less than one-half. Stationmasters, etc., must have a vision in the worst eye of not less than one-quarter, etc., so that the recommendations of the House of Delegates in absolutely ignoring the visual capacity of the worst eye in case of re-examinations seem to so far transgress the laws of good judgment as to make it only reasonable that this feature should be amended.

In making such amendments, I feel that several things should be considered, and while being, perhaps, as anxious for the maintenance of a high standard as anyone, and while unwaveringly insisting on perfection in the case of new employes, I increasingly feel that we must be most liberal in our concessions to old employes, and the older they are, and the longer they have worked for a certain company, the more liberal must we be. This conclusion has been reached after a long and extensive experience with railroad men, and while feeling that public safety must always be subserved—and it would be most beautiful if ideal and altruistic conditions might always be obtained—we, nevertheless, can not entirely ignore the practical issues of the problem. For instance: Here is an engineer who has worked in this capacity for forty years for a single company. He is an old man of much experience and excellent judgment, and has never had an accident that could be attributed to poor vision; and yet, nevertheless, has now a vision which has become reduced to 20/70 in one eye and 20/50 in the other, without glasses. When his vision is corrected with glasses his vision can be improved to say 20/40 in one eye and 20/30 in the other. Now let me ask you, what are you going to do with that man? This is a question which must frequently be answered, because a large proportion of old engineers have poor vision and sooner or later must face this problem. I think in laying down rules for the solution of such a question, that great latitude must be observed and the utmost paucity of vision, consistent with actual safety of train service, must be liberally computed. In making such calculations we should likewise remember that we can never be certain that we are correct in our deductions. We are simply expressing our own opinions aided by the opinions of others, but we have no way of knowing whether we are really right or wrong. Therefore, we should not be too dogmatic in our ideas or too intolerant of the opinions of others. We should not fail to remember that as a man waxes in age he also usually waxes in experience and good judgment, and what he lacks in vision and other physical attributes he makes up in other qualities, nearly if not quite as valuable. Many of the best and most trusted engineers on all roads unfortunately possess very poor vision, and yet get into very little trouble, not because their vision is so poor, but because they are ripe with practical experience and wisdom. Then comes the question of glasses, or in other words, shall old engineers be allowed to wear glasses when on duty when glasses are necessary to bring vision up to the accepted standard? I do not say "proper" standard, but "accepted" standard, because no one knows the limits of a "proper" standard for an old engineer. Please observe that I do not recommend the same degree of latitude for firemen that I do for engineers, for obvious reasons. Firemen are usually young men and have not had the experience and do not possess the ripe judgment of engineers. They should, of course, possess perfect eyes before they become firemen, and this same standard or a very small departure from it should obtain when their re-examination for promotion as engineer occurs. After they have actually become engineers, they are entitled to the latitude already referred to in this paper. I sometimes feel that the visual requirements of engineers should be graduated from time to time in accordance with their age and years of service on an engine, but this solution of the problem appears to complicate a situation which we are endeavoring to clarify and simplify. It therefore seems best to state what we believe to be the extreme limits of visual safety for old engineers in the requirements, and then trust in the good judgment, and, if I may use the expression, "horse sense" of the company surgeon or oculist to settle each individual case on its respective merits without indulging in hair-splitting technicalities.

But to return to the question of the advisability of allowing engineers to wear distance glasses when on duty. My own mind has undergone several revulsions of opinion on this important question, sometimes believing it best and at other times entertaining different views. I have noticed one thing, however, that my strictest views are in evidence when I look at the subject theoretically, and my most liberal views come to the surface when I am compelled to pass judgment on an individual case. I believe that no one will contradict the statement that a large proportion of engineers past 55 years of age would fail in a strict visual test for distance unless they could avail themselves of the assistance of glasses. This means that at the very time when engineers are most valuable to a railroad company—at the very age they may be considered the safest guardians of life and property—they may be discharged, because their vision has fallen one point below a prescribed theoretical standard; and although glasses can perhaps give them perfectly normal vision on both sides, they may not be worn. I understand all of the arguments against the use of glasses. They become misty on cold and foggy days, sweaty on hot days, speckled with dirt and cinders; and yet when I come to judge on individual cases and see in my consulting room a fine looking manly man of perhaps 55 summers, erect in his bearing, with a fine long record for carefulness, skill, reliability and judgment, with no serious accident in his entire career of perhaps thirty years as an engineer for one company; with a family to support, and with absolutely nothing against him except a refractive error that lowers his visual capacity a little below the required standard, and whose vision can be restored to a normal, or nearly normal, standard by the use of glasses, I must say that the temptation is strong, and usually becomes overpowering, to give him the glasses and tell him to continue in his life's occupation, feeling that a man of this character can be trusted to take care of his glasses and keep out of trouble. I believe that most men here present would do the same; and if we have not the courage to live up to certain arbitrary rules, or if we conscientiously believe that such rules are too drastic, why not outline a wise and still liberal policy which we are willing to accept and then live up to it?

I question very much whether we have the right to enforce the requirements of overpowering character on old engineers at the present time. No strict requirements were in force years ago when these men were admitted to work for different roads. They were accepted with but little ceremony, and now they have grown old in the service, and I feel should be dealt with as leniently as is at all consistent with safety. It should, however, teach us that we can hardly be too strict in the admission of new men to the service, and I feel that no man should be allowed to commence work on an engine as a fireman, hoping some day to become an engineer, unless he is a practically perfect specimen of physical manhood, for we must remember that as years progress and age advances, physical infirmities become accentuated and the trifling defect of young manhood becomes the disqualifying condition of riper years. It is for this reason that I urge the non-acceptance of new firemen, who, notwithstanding that they possess a vision of 20/20 in each eye, yet have an apparent substantial hypermetropia of, let us say, one and one-half diopters, which, although easily overcome in young life by an active ciliary muscle, shows itself unmistakably as age advances and the muscle loses its power, under which circumstances vision drops to a lower and still lower standard until it becomes so poor that the man's occupation may be lost from a cause which, if detected on the entrance examination, would have saved him this bitter disappointment of his advancing years. In other words, in examining a man for his primary entrance to the service, we should look ahead many years.

Another phase of the matter which we can not afford to ignore is the labor problem. In these days of labor unions, when the removal of a single man, even though he is merely taken from one job and given another, is perhaps sufficient to tie up an entire railroad system and paralyze many industries, it may be well to be sure we are on safe grounds when we remove from his engine a superior engineer, even though he is simply shifted from one position to another, to which it is thought his physical defect better adapts him.

I would then recommend, for reasons already given, that the House of Delegates' report be further amended by inserting under "Class A" and also under the caption "Entrance to service or promotion," and after the words "20/20 in each eye, tested separately without glasses," the words "The applicant shall not possess more than one and one-half diopters of apparent hypermetropia."[1]

Under the heading of Class A, and under the caption "Re-examination of those in the service," I would recommend that all of the underlying words be stricken out and the idea of testing with both eyes open be done away with as being both inaccurate, misleading and unscientific, and the following words substituted:

Enginemen shall not be retained in their positions if vision sinks below 20/40 in one eye and 20/30 in the other, or 20/20 in one eye and 20/50 in the other. Distance glasses must be worn when on duty, provided such glasses are necessary in order to bring vision up to the required standard. Extreme indulgence and concessions shall only be made to old and trusted enginemen, at the discretion of the company surgeon, it being remembered that the best vision is desirable and that glasses are undesirable. Firemen shall not be eligible for promotion to enginemen if vision sinks below 20/20 in either eye without glasses, and shall not be retained as firemen if vision sinks below 20/30 in either eye without glasses. The whispered voice must be heard at not less than 15 feet in a quiet room.

Under the heading of Class B, "Re-examination of those in the service," in House of Delegates' report, instead of the words "20/40 with both eyes open," etc., I would suggest the words: "Employes shall not be retained in these positions if vision sinks below 20/40 in one eye and 20/30 in the other eye, or 20/20 in one eye and 20/50 in the other. Glasses must be worn if they are necessary to secure adequate vision. The whispered voice must be heard at not less than ten feet in a quiet room." I would suggest the same words in the same section of both Class C and Class D. I would recommend striking out entirely Section 7 in House of Delegates' report, as the points contained therein have been fully rehearsed before. On this account Section 8 should be called Section 7, Section 9 Section 8, and Section 10 Section 9.

I exceedingly dislike making these suggestions, which have developed into a good many, especially as I have in the past strongly advocated their general adoption. While recognizing their shortcomings, I am confident that as between the two reports the Section on Ophthalmology report is the better, and should not have been tampered with; as it was the deliberate result of the work of a conscientious Committee, extending over years, while the House of Delegates' report was the result of the quickly and illy considered debate of a few moments in the House of Delegates, where some little eloquence or personal influence goes a long ways in reaching results. I will gladly support either the Section on Ophthalmology report or the remodeled House of Delegates' report as contained in this paper. I am merely anxious to get some good and commendable movement thoroughly started in railroad circles, some ideas and instructions crystallized, which will be uniform throughout the length and breadth of this land and be accepted as a standard to work from. After this is accomplished, further improvements and advancements can be made, but we should be careful not to make our recommendations so strict and oppressive that they will be ignored.

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[1] If the applicant can have a +1.00 diopter lens placed in front of each eye, separately tested, without blurring his vision, he has one diopter of apparent hypermetropia. If a +1.25 or a +1.50 diopter lens does not blur his vision he has more than one diopter of apparent hypermetropia.

Before closing, I wish to enter a plea for the more general appointment of eye and ear surgeons on the different roads and the investing in them of broader responsibilities. I feel confident that if more roads and their general surgeons sought the intimate counsel of skillful and conservative eye and ear surgeons, both as to accidents, examinations and advice concerning the policy of the road in matters about which they are supposed to be especially interested, it would be better for all parties concerned; or in other words, to use the language of Mr. R. C. Richards, the experienced and efficient general claim agent of the Chicago & Northwestern Railway: "Why would it not be a good plan to spend a small portion of the money that is paid out every year for safety appliances in getting some safety employes?"

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THE BLUE LIGHT TREATMENT IN DISEASES OF THE SKIN.

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Roswell Park has but recently stated that the x-ray treatment is in its infancy and that its true value cannot be estimated at the present time, but that it is a matter of the future. The entire field of light therapy is still in an experimental stage and necessarily the results of treatment are open to criticism. Certainly with so many careful and earnest workers as are in the field at present, the evidence as to their value is just a question of time. Because there is a variance of opinion,[1] due to variance in the results of different workers in the same class of cases, it is not courteous nor scientific to accuse individuals who have the spirit of investigation and scientific interest at heart, of dishonesty whenever the results are not as good as those of others. Neither should it be done if the results are better. This will also hold true of phototherapy. Certain forms of the latter mode of treatment have been in use for a much longer time than radiotherapy. However, not any one method has been taken up with the same zest and interest as the x-ray method of treatment. Hence, as regards the number of cases treated there are but few compared to it, though the time which has elapsed is not sufficient to permit of final judgment as regards their value. On account of the similarity in action and results it may be pardonable to make some slight comparison. Other methods of phototherapy than the one mentioned in the title of this paper have been resurrected, others, devised but recently, have been brought forward into the field of therapeutics.

The red light treatment of Finsen was introduced almost fifteen years ago, but is now again in the experimental stage. Brilliant results were recorded in the first cases, but the latest investigators have failed to corroborate them, yet it is necessary to wait until further work has been done in this particular line. The red rays with which Finsen experimented undoubtedly have a tonic action on the nervous system; however, this form of treatment, in the diseases of the skin, depends on the exclusion of the chemical rays of the solar spectrum. Finsen, to be more exact, has shown in his studies of the acute exanthemata, good results. Yet numerous investigators have failed in the same class of cases to observe good results with the method. These red rays can penetrate deeper into the tissue than the blue rays, as shown by many workers. The blue rays show a decided action on the vasomotor system, and apparently have a soothing effect on individuals suffering from excitement, just opposite to the action of the red rays.

There are certain recognized facts, for instance, antagonism between the colors of both ends of the spectrum, and demonstrated by the following: The phosphorescence caused by the blue rays are overcome by those of the red light. Here the extremes have the opposite action. It can not be expected that this remains true in every instance, but that their peculiar action shows gradual differences. Finsen was the first to investigate the value of the light treatment and it was in connection with variola red light was used. Gen. Pleasanton, however, in an empirical manner, used blue light. The other colors of the spectrum have as yet not been used in phototherapy; certainly not in the field we are interested in.

Now as regards the topic under consideration. It was Minin who first used blue light, by using blue incandescent lamps and reflectors. Later it was modified until it attained its present form. Minin's, Marcus', and my own results have been obtained with the apparatus which I will describe. This consists of an arc lamp, back of which a reflector is placed. It is best to have a resistance box on whenever using the street current, in order to regulate the constancy of the light, which in our case is 5,000 candle-power. The reflector concentrates and throws the light on a screen, which consists of blue glass. The height of the screen can be regulated so that the desired parts of the patient, who is placed behind it, can be readily exposed. As the screen is of large size, large surfaces may be treated at the same time. In this it differs distinctly from the Finsen light treatment. The mode of treatment is as follows: It is not necessary to protect the healthy parts with metal sheets, as in x-ray work, when treating localized areas. Up to the present time no untoward effects have been noticed, though the entire body has been exposed. The parts exposed should be unprotected from clothing, etc. The distance from the screen should vary as to the case, depending on whether the heat rays should be used. The distance from the screen varies, therefore, from a few inches to a foot. As regards the length of time, this varies, depending on the distance, from a few minutes to thirty minutes, or even longer. The number of treatments differ, as in all other forms of light treatment. Some cases react readily, others react more slowly. Treatments may be given daily or twice daily for long periods of time. Here again it is not necessary to fear accumulative action as in the x-rays.

As regards the action of these particular rays after they have passed through the screen, they depend both on the heat and the color rays. The spectroscope shows the absorption of the red and yellow bands by the cobalt glass screen, while the blue and violet rays pass through. The ultraviolet also pass. The actinic action which accompanies the blue rays is much less than those accompanying the ultraviolet rays. Now as regards the action of the blue light. Are the blue rays of the spectrum bactericidal? Experiments of Bie and Finsen have shown that the action of the blue, violet and ultraviolet are the most powerful in the order named, hence this form of treatment should be considered favorably from this standpoint.

Which rays are accompanied by inflammatory reaction? According to the same investigators, they are the same rays that have a bactericidal reaction.

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[1] For these various views as to the relative merits and shortcomings of the various forms of phototherapy and radiotherapy the current literature will be found to give the ideas of the many investigators.

Both in the blue light and Finsen light treatment one other question must be considered, and it is, "how is it possible, in the easiest and best manner, to free the rays from the undesirable heat rays without destroying at the same time the bactericidal and inflammation-causing action of the light rays?" This question is answered, in both instances, in different ways. In the Finsen method, whether or not glass or quartz lenses are used, again whether electric or sun light and again whether in the cooling of the rays distilled water or colored water is used, which also considers the absorption of some of the colors of the spectrum. In the mode of treatment under consideration the distance of the screen from the reflector and again the distance of the part treated from the screen, play a part in answering the question. As to the clinical action of the rays in the blue light treatment it has been possible for me to observe, immediately after the commencement of treatment, the appearance of oozing serum from ulcers, which in some cases becomes copious, stimulation of surfaces of ulcers causing rapid cicatrization, analgesic effects to painful skin diseases, and in some cases the allaying of severe itching, resorption of pustular and non-pustular nodules of the skin.

Number.	Name, Age, Sex.	Disease.	Treatment.			Space of Time.	Course.
			Kind.	No.	Length of Each.		
1	H., 32, M. .	Lupus vulgaris faciei et colli.	X-ray.	105	3 to 15 minutes. .	. . . . . .	For first few months apparent improvement, then but slight changes, for the new nodules constantly appearing, old areas however cicatrizing.
1	" " " . .	Same as above	Blue light. . .	15	15 " . .	27 days. . .	Immediate effect for the better, no new nodules at the periphery stopping of the progress, cicatrization.
2	I. M., 60, M . .	Lupus vulgaris faciei . .	X-ray.	114	3 to 20 " . .	. . . . . .	Dark bluish-red in color, distinct lupus nodules at periphery, much infiltration, great improvement but very slow.
2	" " " . .	Same as above	Blue light. .	17	10 to 30 " . .	30 days . .	[illegible] marked reduction of infiltrated [illegible] much lighter in color, scarcely [illegible]s at edges.
3	Miss W., 27, F.	Acne vulgaris faciei . . .	X-ray.	10	5 to 15 " . .	9 weeks .	[illegible] fter a period of rest, increase of [illegible] eatment was again taken up; [illegible]
3	" " "	Same as above	Blue light. . .	12	10 to 20 " . .	3 weeks . .	P[illegible] mprovement, lessening of congestion, but few fresh acne pustules appearing after commencement of treatment.
4	F. B., 21, M. .	Ulcus phagadenicus . . .	" "	4	15 to 30 " . .	7 days. . .	During course of first treatment pain lessened, appearance [illegible] ged. Base granulating [illegible] healing.
5	D. H., 47, M. .	Ulcus cruris	" "	6	15 to 30 " . .	2 weeks . .	Case [illegible] antiseptically for months. After commencement of treatment almost immediate improvement. At end of two weeks seat of ulcer covered with epidermis.
6	A. K., 19, M. .	Chron. vesicular papular eczema, both hands.	" "	15	10 to 20 " . .	3 weeks . .	Gradual but marked improvement. Vesicles after bursting apparently commenced to dry; scaling set in.
7	A. L., 30, M. . .	Carbuncle of neck	" "	21	10 to 20 " . .	4 weeks . .	Carbuncle size of silver dollar, marked lessening of pain, oozing of serum from broken-down tissue, rapid absorption of infiltration.
8	E. H., 22, F . .	Acne vulgaris faciei . . .	" . .	14	10 to 15 " . .	5 weeks . .	During first few weeks, but few new pustules. Absorption of nodules.
9	A. B., 31, M .	Acute eczema of the face.	" "	3	30 " . .	4 days. . .	Lessening of edema, decrease of burning sensation and appearance of scaling.

Minin reports favorable results in the treatment of painful bruises, hematomata, infiltrations, acute and chronic eczema, ulcers and burns. A large percentage were cured, in others he noticed great improvement. In addition, cases are cited where local anesthesia to the parts treated was produced, and later he used this as a method of local anesthesia, so that minor operations were made painless. Marcus has not been able to report such wonderful results as Minin, but nevertheless has found satisfaction with the method in numerous instances. On account of these reports the blue light treatment was instituted by myself in a number of cases which had been treated for an excessively long time with the x-ray, without any appreciable change, especially after the first few months of treatment. The changes after the first treatments were so marked that I can not fail to mention them here. These and other cases which I have treated in this manner will again be reported at a later date. On account of the limited work which has been done by myself in this field, I wish to be pardoned for presenting the same, but on account of the excellent improvement that I have seen in the cases treated, I have thought it advisable to bring this subject to the attention of those that are inclined to look into the subject, as I am made to believe that it may be of true value in a limited number of cases. The kind and details of the cases that I have treated can be seen from the following table.

A few words in regard to the possibilities. Holzknecht maintains that these rays can have no penetrating and curative power, unless when involving or destroying the uppermost or outer part of the body, or its integument. It is a fact, however, that with the Finsen method deep-seated tubercular nodules are favorably influenced, without involving the superficial strata.

Whenever taking up new methods there must be some ground for the same. The violet and ultraviolet rays were known to be anti-bacterial in action, but it was thought that the rays scarcely penetrated the epidermis. As authorities differ on this point it will be best to state that in all probability the blue and ultraviolet rays are absorbed in the true derma. If this is true, and I am inclined to believe that it is, the penetration of the rays can account, by the action on the tissue, for the results attained.

To sum up blue light therapy it is necessary to consider:

1. Simplicity in the mode of application.
2. Large or small surfaces may be treated.
3. No untoward effects, especially no deep-seated burns, as in case of x-ray therapy
4. Results, comparing with other forms of light treatment.
5. Expense of apparatus.

Reading in Bed.—Almost every English medical journal has had its say on the subject of reading in bed, and the discussion has been mentioned in a few journals on this side of the water. The consensus of opinion is as follows: Under proper restrictions one may indulge in reading in bed without harm, the position of the reader should be upright, or nearly so, the subject matter should be not too exciting or absorbing, the light should be bright and properly placed, and every one who indulges in the habit should use moderation.

STRANGULATED FEMORAL HERNIA CONTAINING APPENDIX.

REPORT OF TWO CASES.*

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Strangulated femoral hernia with the appendix alone as the contents is of sufficient rarity to report. In the literature I find reports of about 100 cases in which the appendix was found in femoral herniæ, but in only a few of these was the appendix the sole occupant of the hernial sac, and in only one or two has a primary strangulation of the appendix occurred. In most cases the appendix was found as a passive occupant of the sac, sometimes accompanying the cecum in its descent, and at other times projecting through the ring with a separate loop of bowel or piece of omentum. In order that the appendix may pass through the hernial ring it must be free in the abdominal cavity and possess a meso-appendix sufficiently long and lax to allow its descent. No case has been reported in which the appendix was found in a left femoral hernia.

Case 1.—My first case was Mrs. D., aged 66 years, who had been in good health for many years with the exception of a lump in the right groin which had been noticed for nine years, but which had given no particular trouble. Though occasionally it was tender on pressure, there never was enough discomfort to necessitate the services of a physician until the present attack. The patient was first seen by Dr. William N. Sullivan, who found that she had been suffering for three days from pain and tenderness over the mass in the groin. There was no vomiting or hiccough; pulse 85, temperature 100 F. I saw the case the next day in consultation, and found an inflammatory mass about two inches in diameter exceedingly tender to the touch situated directly over the right saphenous opening.

I made a diagnosis of either infected inguinal glands or a strangulated omental femoral hernia. The patient was removed to the hospital and operated on immediately. When the sac was opened about half an ounce of bad-smelling serosanguineous pus ran out. The contents of the sac consisted of the appendix, which was large, inflamed, and had a large perforation near the tip; an appendolith, which was lying in a small circumscribed abscess, and the meso-appendix, which was much hypertrophied from its long stay outside of the abdominal cavity. The whole mass was separated from the sac wall to which it was firmly adherent up to the ring, where it was found that the adhesions were so firm that it was not safe to attempt to liberate them, so the appendix and its mesentery were ligated *en masse*, removed, and the stump touched with pure carbolic acid. The cavity was drained with gauze. It closed rapidly, and the patient went home in three weeks. In this case no attempt was made to close the hernial opening because the stump formed an impassable barrier to any future hernia, and any such attempt would have been followed by failure on account of the infection. The appendix must have descended at the beginning of the trouble and during its long incumbency became firmly adherent to the femoral canal. Whether the concretion had started previous to the hernia or not can not be stated, but from its size and consistency it had certainly increased materially during the past few years.

The strangulation in this, as in most similar cases, was secondary and due to the swelling which followed the inflammation of the appendix; and from the condition of the structures in the femoral canal it would take very little swelling of the appendix to cut off the circulation and produce necrosis.

Case 2.—Mrs. C., aged 69 years, had had good health previously with the exception of backache, which was worse when she was sitting than when standing or walking. She had never noticed any disturbance in the groin at any time. She woke up one morning feeling perfectly well, and prepared the breakfast. During the meal she was seized with cramps and a bearing-down pain in the lower abdomen, more on the right side. She went to bed immediately and discovered a small lump in the right groin. She called her husband's attention to it, and he, having a rupture himself, thought that his wife's condition was similar to his own, and tried to reduce the mass by rubbing, but without success. Hot bags and other local applications were also tried.

I saw the case at 7 p. m., just twelve hours after the onset, and found the patient suffering intense spasmodic pain in the right groin, radiating up to the abdomen and back. The pain in the back caused more distress than the others. I mention this particularly because I believe that the backache which she had previously was due to the dragging on the meso-appendix during the formation of the hernia, which I think existed some time before its discovery, but which had never been apparent on account of the thick layer of fat. The patient had vomited once shortly after the beginning of the attack. The temperature was 101 F. and the pulse 100.

Examination disclosed a small mass about one and one-half inches in diameter just below Poupart's ligament, and directly over the saphenous opening, which was very tender and hard. I made a diagnosis of strangulated femoral hernia, and had the patient removed to the hospital at once for operation. When the sac was opened about two drams of odorless bloody serum ran out. It was seen at a glance that the contents of the sac consisted of the appendix doubled on itself and strangulated at the external ring. The tip was above the constriction and could not be pulled down until the ring was cut through, when the whole appendix could be pulled down with ease.

An interesting feature here presented itself: it was found that the tip of the appendix was almost gangrenous, while the rest was only intensely injected, showing that the double constriction had caused an earlier strangulation than the single constriction near the base. By carefully pulling on the appendix the cecum was drawn through the ring, the appendix removed in the usual manner, and the stump inverted according to Dawbarn. The femoral canal was closed by passing a few chromicized catgut sutures from the pectineal fascia to the under surface of Poupart's ligament, and the external wound closed in tiers. Recovery was perfect.

590 Sutter Street.

Clinical Report.

A CASE OF UNDESCENDED TESTICLE.

FRANK EUGENE PILCHER, M.D.
DETROIT.

The scarcity of literature on the subject of undescended testicles leads me to believe that possibly many cases are overlooked. The article of Dr. Bevan[1] on this subject is not only timely but very interesting and instructive, as it shows very clearly the technic of this operation, which in most cases is so important for the full development of the male child.

I agree perfectly with Dr. Bevan that the rule should be to operate and transplant to its normal position in the scrotum every undescended testicle which can be palpated. I also believe that every case of undescended testicle at the age of puberty should be operated on. The operation should be done as early as possible, and in every case before the age of 19. In several cases I have made the operation much as Dr. Bevan suggests, and in each case have had most satisfactory results. They were, however, with the single exception given below, under the age of 17.

History.—Walter W. aged 28, unmarried, called on me Feb. 15, 1902, complaining of a nervous condition which was rapidly growing worse, and seemed almost beyond endurance. For some time he had been under the care of different physicians of good standing, and for the past three years had been given almost constant treatment for stomach trouble, all to no purpose. During his first visit the following information was obtained. He was of an extremely nervous and excitable temperament, and had been so from his earliest recollections; decidedly feminine in his actions, choosing rather to do fancy work, housework or sewing to the more laborious occupations of his companions. The nervous condition had increased with years, and since the age of 18 had grown worse more rapidly. Spells of a mild form of melancholia were of frequent occurrence, but the one particular source of trouble was the stomach; he was very "fussy" about his diet, and quite as unreliable. It frequently happened that food prepared according to his directions would be refused when brought before him, a sudden nausea coming over the patient, making it impossible for food of any kind to be taken. Often after partaking of a well-cooked and properly served meal he would leave the table suffering a severe headache, and soon after be taken with vomiting, expelling the contents of the stomach in an undigested condition. Another symptom which was always present, differing only in severity, was pain of a sharp, shooting character through the abdomen, causing much suffering, and at times compelling him to remain away from work, frequently making it necessary to remain in bed for a few days. His nights were almost sleepless. What little sleep he had was disturbed by nervous twitchings, bad dreams, sudden starts or jumps, moanings, often shouting and delirium.

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* Read at the September meeting of the California Academy of Medicine.

[1] The Journal A. M. A., Sept. 19, 1903.

Feb. 20, 1902, I was summoned hastily, being told that Walter was having a high fever and bad nervous spells, which had lasted for two days. Arriving at his rooms, the following condition presented itself: He was in a delirium of a somewhat violent type, did not recognize me and seemed unable to recognize his attendants or intimate friends. Medicines were positively refused, food likewise. Vomiting at first of undigested food, later of mucus, frequently occurred. It was impossible to keep him quiet, he would jump, toss and roll about the bed manifesting every symptom of severe pain. At times he would, in spite of restraint, jump out of bed shouting and crying as though persecuted by evil spirits. I was told that this was no uncommon condition (only perhaps worse) as it often followed an extra exertion, over-fatigue or undue excitement.

I called the following morning and found him much improved, although suffering in the same way at less frequent intervals. During his sane moments he could remember nothing of what had taken place during the delirium. In the afternoon of the second day, vomiting occurred, and improvement gradually followed. On the fourth day, all unfavorable symptoms subsided and he seemed to be as well as before the attack.

Shortly after this he left the city and I did not see him again until the following July, when he called at my office. All the symptoms above mentioned had grown worse, and some new ones had been added. Dizziness of a decided character was more or less constant, making him rather frightened to venture away from home. A temporary loss of mental faculties was probably at this time the most pronounced of the newer symptoms, for instance, he would leave some place for home, and perhaps, when he recovered consciousness would find himself some miles away from his destination, probably having gone in the opposite direction, and having not the least conception of when he got there. Music had at all times been the source of his greatest pleasure, and was the one thing of which he seemed never to tire, but now all was changed, he cared nothing for it, and usually it was very distasteful, often causing feelings of a depressing nature. Without warning and with no regard to surroundings he would break out into most hysterical and violent fits of crying, which seemed beyond his control. Instead of enjoying companionship as in the past, he dreaded meeting even his most intimate friends.

Diagnosis.—A satisfactory diagnosis had not yet been made by me. Further inquiry into the family and personal history revealed nothing of interest. I made very careful inquiry about the genitals, but could obtain no information that would in the least aid me. He had been circumcised a year before coming under my care. The time was now at hand either to give up as unable to cope with his complaint or to ascertain the cause and remove it. I demanded a thorough physical examination, telling him to remove all clothing, whereon strong objections were made, but as no objections would stand, and nothing short of the most rigid examination would satisfy me, he volunteered the information that he had no testicles and never had had any. At last here was the cause for which we had sought, and inspection failed to locate them. By palpation it was ascertained they were high up in the canal, the left one about three-fourths normal size, hard and painful, the right one more nearly natural size, very hard and extremely painful. Both were immovable. Palpation caused much suffering and a decided increase in all the nervous symptoms. I advised immediate operation.

Operation.—Sept. 2, 1902, the patient was admitted to the hospital, and on the following day the operation was performed. I had expected to follow the plan of procedure suggested by Dr. Bevan, but it was necessary to abandon this for the following reasons: When the sac was opened the testicle was found bound down by strong bands of adhesions, and only by the most patient work could the organ be freed enough to move it from its resting place. The cord could not be lengthened even by repeated efforts, and no better results were obtainable after some of the tense bands of connective tissue were severed. Careful dissection helped to free the testicle enough to lift it out of its bed. My original plan of bringing the organs down into the scrotum had to be abandoned and with some difficulty the ligatures were placed about the vaginal process and spermatic cord, each being treated separately. Then the organ was removed. The right testicle was treated in the same manner, as I found the conditions a counterpart of the left. The wounds were closed by buried catgut sutures and the skin incisions by interrupted silkwork sutures without drainage, the usual aseptic dressings being applied.

After the first 48 hours he suffered no pain, all nervous symptoms having disappeared. Gradually the appetite improved and soon he indulged in all varieties of food with no unpleasant results. On the tenth day the silkworm sutures were removed and three weeks after operation he left the hospital well. At the present time, one year after operation, he is in perfect health, having had no return of the mental or nervous symptoms, and has gained in weight and strength.

From my experience with this case it seems to me that possibly this cause is sometimes overlooked in the diagnosis and treatment of nervous troubles.

1300 Grand River Avenue.

Rabies vs. Diphtheria.—I. Prieto of Mexico mentions a case that occurred in the practice of G. Fabela in which a man was bitten by an animal supposed to be rabid. Four or five weeks afterward the man exhibited symptoms of hydrophobia, rapidly progressive. The physician diagnosed the case as hydrophobia, but ventured to inject antidiphtheria serum, knowing that it had sometimes displayed efficacy in diseases other than diphtheria. To his surprise the symptoms of hydrophobia promptly subsided and the patient recovered. Prieto himself had occasion to treat a case of hydrophobia two years ago, which had developed subsequent to a dog bite on the hand. The dog was a young, intelligent, great Dane, apparently in perfect health at the time and ever since. The case was diagnosed as nervous hydrophobia, with a favorable prognosis, but the patient rapidly succumbed with the typical picture of hydrophobia. In all his experience Prieto has never known a case of an animal's recovering from rabies. He compares this case with the one reported by Head and Wilson, in which the symptoms were those of hydrophobia, but the bacilli discovered were diphtheria germs. From all these facts Prieto deduces that the diphtheria bacillus is able to induce a symptom-complex in man exactly similar to that of hydrophobia, and it is more than probable that many cases of supposed hydrophobia were in reality this hydrophobic form of diphtheria. His article is published in the *Gaceta Medica*, the organ of the Academia Nacional de Medicina of Mexico, January 15, 1903.

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THE CLINICAL STUDY OF DIABETES.

Last week[1] we emphasized the necessity for individualization in the directions to be given to diabetic patients, and urged that the method of treatment should be elected in accordance with the form of disturbance of sugar metabolism present. Our comments were founded mainly on the discussion[2] of the subject at the New Orleans session of the American Medical Association. In the symposium on diabetes at the recent meeting of the Medical Society of the State of New York,[3] this principle of the necessity for treating the individual affected with diabetes and not the diabetes itself, was emphasized by two such excellent therapeutists as Dr. William H. Thompson and Dr. Frederick C. Shattuck. In addition, however, some novel suggestions were advanced with regard to the necessity for more careful clinical differentiation of the varying forms, not alone as regards the "mildness" or "severity" of diabetes, but as to the particular type of failure to use carbohydrates which is present in each case. Dr. David Edsall[4] of Philadelphia, in a paper read on the "Physiologic Chemistry of Diabetes," called particular attention to the fact that it is not the power of using all starchy material which diabetic patients have lost, but that of properly elaborating—metabolizing, so to say—certain forms of starch which occur in an ordinary diet. No two patients are exactly alike in this regard, and the term diabetes, in its strict etymologic meaning, that unused material goes through the body and its limitation then to the tendency of sugar to *run through* the system without accomplishing its purpose, is unwarranted by the results of careful investigation.

Recent observations have shown that where the faculty to metabolize dextrose has been entirely lost, levulose (the form of sugar which turns the axis of a ray of light to the left) may still be ingested in certain cases in considerable quantities without any anomalous results. Some of the other isomeric forms of sugar may also prove innocuous for metabolism, even though dextrose can not be employed to any appreciable extent. At first, these observations were taken entirely as encouragements to look for unusual forms of sugary material that might possibly supply for the waste induced by the failure to use dextrose. Now, however, has come the thought that this should lead rather to further study of the special form of diabetes, or, in other words, the special form of failure to use sugary material from which an individual patient may be suffering.

It is not alone by delicate chemical differences that diabetic patients need to be separated into classes. Much cruder evidence of individual differences as regards starch, digestion and sugar metabolism may be found without the necessity either for detailed chemical knowledge or for refined laboratory methods. It is now known that some patients suffering from diabetes are able to use bread with much more impunity than others, while again some patients find that the starch obtained from potatoes is comparatively innoxious to them. Recently, von Noorden[5] has shown that a large number of diabetic patients can take oatmeal and be benefited by it, when other starchy products are sure to cause deterioration of their diabetes. It is probable that these individual differences, with regard to the power to use certain starchy materials, will be found to be much more complex than even this initial sketch would seem to indicate.

Dr. Edsall added that it is not impossible that there is a special ferment for each form of sugar, and that every kind of starch from every different vegetable is acted on differently before it is ready for use in metabolism. The old idea of starch digestion and absorption was simply that of conversion into sugar and then solution in the blood serum, from which it was absorbed in the muscles and liver for the various purposes for which it was needed. Physiology is, however, by no means the simple set of processes that it used to be considered. Dr. Edsall suggested that, as Ehrlich's theory of immunity demands the existence of many different kinds of receptors on the cells, a different one for each kind of infectious material that invades the body, so it may not be too much to look for a special kind of ferment for each of the various modes of starch, and that diabetes, like immunity, instead of being a simple process, is extremely complex.

In a word, the physiologic chemist has come back to the clinician for more data. Diabetes, far from being a simple form of disturbance of metabolism, is probably a very complex affection, with perhaps very different causes in different cases. The physiologic chemist has not solved the problem of diabetes, as it was so long hoped he would, but he has found that the clinical observer has not used the opportunities at hand for the differentiation of the affection into types of disease, some of which are much more easy of treatment than others. This return of the laboratory worker to the clinic is being noted along many lines in the study of nosology. Study at the bedside has been too much neglected of late years, and the result is apparently a serious setback for progress in medicine.

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[1] The Journal A. M. A., Feb. 20, 1904, p. 536.
[2] Ibid., Jan. 2, 1904, pp. 21 to 23.
[3] Ibid., Feb. 6, 1904, p. 391.
[4] See abstract in Medical News, Jan. 30, 1904.

See abstract in The Journal, xli, p. 1374.

THE ETIOLOGY OF RHEUMATIC FEVER.

The recent work of Shaw[1] again calls attention to the problem of the microbic etiology of acute articular rheumatism or acute rheumatic fever. This has been a vexed problem for many reasons. As will have become apparent to the readers of The Journal in which this subject has been discussed many times, there have been various views held as to the cause, some proceeding from a purely *a priori* standpoint, others based on more or less imperfect evidence. The older view that a metabolic or autotoxic process was responsible has latterly been largely supplanted by the microbic intoxication or infection theory, having as its basis the analogies found in other infectious diseases and also certain bacteriologic findings. The views which have been held concerning the microbic cause are: 1, That it is a toxic disease caused by the absorption of bacterial toxins from a local point of infection (presumably the throat); 2, that it is microbic but not specific, more than one micro-organism being able to cause the disease (staphylococci and streptococci especially); 3, the now almost abandoned idea that the large anthrax-like bacillus of Achalme is the cause; 4, that a diplo-streptococcus is the cause; and 5, a specific micro-organism suspected, but its nature not known or proved.

Staphylococci have been recovered from cases of rheumatism by Guttman (1892), Sahli (1892), Singer (1894); staphylococci and streptococci by Singer; the bacillus of Achalme by Achalme (1891), Thiroloix (1897), and Triboulet and Coyon in two cases; streptococci, or a diplococcus considered to be a form of alteration of the streptococcus, by Netter (1892), Dana (1894), Charrin (1894), Buss (1894), Triboulet and Coyon in five cases, Apert and Triboulet in eleven cases, Westphal, Wasserman and Malkoff in one case, Poynton and Paine (1900) in eight cases, Beaton and Walker (1903) in fifteen cases. Menzer has also recently carried on extensive investigations in serum therapy with streptococci cultivated from the tonsils of rheumatic fever patients. It is thus seen that evidence has accumulated in favor of the streptococcus (diplococcus) etiology of the disease. Animal experimentation has also been encouraging with this organism as derived from a number of sources, particularly with inoculations into rabbits. Triboulet obtained changes in the endocardium, pericardium and joints similar to those found in man in rheumatic arthritis. Wasserman, in a remarkable series of eighty rabbits, obtained similar lesions with a streptococcus cultivated from a case of post-rheumatic chorea. The experiments of Poynton and Paine, Beaton and Walker, and finally of Shaw, have been confirmatory. In studying the reports of the disease as produced in rabbits, its close resemblance to the rheumatic fever of man, both in the essential lesions and in the so-called complications, is striking. The arthritis is wandering and non-purulent, and the valvulitis, endocarditis, pericarditis, myocarditis and pleuritis are said to be identical with the similar human lesions. One of Shaw's rabbits developed an acute iritis on two occasions. The micro-organism has been recultivated from all these foci, and in several instances the disease again produced by inoculation of the secondary cultures into other animals. Shaw performed two apparently successful inoculations on monkeys.

Confidence is transformed into confusion to a certain extent when one turns from these results to the report on 270 cases of acute articular rheumatism occurring in the Johns Hopkins Hospital,[2] where the cultural attempts were almost uniformly unsuccessful. It seems improbable that the disease could have one cause in England and another in America, but it is quite possible that differences in technic or culture media would explain the radically different results.

Although the results quoted above seem very promising, experience dictates that a certain amount of reserve is indicated in regard to them. The possibility of a secondary contaminating microbe occurring more or less constantly in a disease must always be kept in mind. The confusion caused by streptococci in the circulating blood in scarlet fever serves to emphasize this possibility. Then, again, while the reproduction of the disease in an animal experiment is of the utmost confirmatory value in establishing the microbic etiology of a disease, it can not be considered proof positive in all cases. We can never assume that the susceptibility of one animal will be equal in degree or character to that of another; the animal may not be susceptible at all, or the reaction may involve entirely different tissues. On the other hand, this test has at times been apparently successful, and still wrong conclusions drawn, as the results of animal experiments with various micro-organisms cultivated from syphilis testify.

While these criticisms may not hold eventually in regard to the diplococcus of rheumatic fever, the negative results among the Johns Hopkins cases make further confirmatory work necessary. It would seem that the optimum culture medium should be determined, likewise the optimum period of the disease for obtaining cultures.

ALBUMINURIA OF PUBERTY.

Albumin in small amount may appear inconstantly in the urine under so many varied circumstances that its discovery fails to arouse the concern that otherwise it would. Nevertheless, the underlying cause should, so far as possible, be sought out and corrected. The mere presence of albumin in the urine, without other evidence of disease of the kidneys or their adnexa, may be considered a functional disturbance indicative of renal insufficiency, which, in itself, may be attended with no injurious effects, but whose existence should raise a question as to the vulnerability of the organs concerned. In order, therefore, to avert more serious disorder, the urine should be examined with systematic regularity, both chemically and microscopically.

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[1] Jour. of Path. and Bact., 1903, ix, 158.

[2] McCrae: The Journal A. M. A., 1903, xl, 211.

The qualification physiologic, as applied to albuminuria, does not seem entirely appropriate, as the fact of the condition being the exception rather than the rule indicates the contrary. There has also been described a form of albuminuria occurring at puberty and attributed to developmental conditions, as contradistinguished from the former, which has been attributed to constitutional conditions. In the course of observations made on 587 young men between the ages of 14 and 18 years employed as apprentices in the glass works at Jena, Dr. Felix Lommel[1] found albumin in the urine of 111. All were surrounded by favorable hygienic conditions. In some instances but a single examination was made; in others the examinations covered a period of from one to two years; while in the majority they covered a period of three or four years. Careful inquiry was made into the family and personal history.

In the overwhelming majority of cases the albuminuria was intermittent. Thus, in 90 cases in which the urine yielded a positive reaction, 436 examinations were made, albumin being found 164 times. Altogether, 2,220 examinations were made. The boiling test was employed at first, but later acetic acid and potassium ferrocyanid were the reagents used as being more delicate. The amount of albumin in the urine, as a rule, was exceedingly small; exceptionally it was considerable. Frequently it was from 0.5 to 1 per cent.; exceptionally more. Generally there was no sediment, or after prolonged centrifugation hyaline tube-casts and fatty degenerated epithelial cells were rarely found.

The albuminuria of puberty has been attributed in part to a depraved state of the blood, in part to a slight degree of cardiac insufficiency, with a tendency to stasis—abnormal conditions related to puberty and dependent on disparity between growth of structure and development of function at this time. Of 90 of the cases of albuminuria, the heart presented some abnormality in 38. In 13, enlargement of the heart to the left was found on percussion and palpation, associated with a heaving apex-beat, increased pulse-tension, systolic murmurs and accentuation of the aortic second sound. In 11 cases no enlargement of the heart was demonstrable physically, but the apex-beat exhibited increased resistance. In 9 cases a systolic murmur was audible; in the remainder there was persistent tachycardia and an increased area of cardiac dullness to the right. Similar conditions were found, however, in 29 cases unattended with albuminuria, so that the opinion is expressed that both the albuminuria and the cardiac disorder are manifestations of imperfect adaptation to the altered conditions of puberty. Violent physical activity was excluded as a possible cause of the albuminuria, which in many, however, may have been of orthostatic origin. Albuminuria was found only exceptionally in older employes under otherwise similar conditions.

A knowledge of the occurrence of functional albuminuria at the time of puberty may be of great importance in the differential diagnosis of chronic interstitial nephritis. Long-continued observation and a careful history are useful in this connection. Further, it should be borne in mind that in cases of albuminuria of puberty, the appearance of albumin in the urine is intermittent, and the amount of albumin rarely exceeds 1 per cent., while the presence of epithelial and granular tube-casts is indicative of the existence of nephritis. In doubtful cases, ophthalmoscopic examination may yield decisive information. An important lesson to be learned from the foregoing observations is that infallible significance should not be attached to hypertrophy of the left side of the heart and increased pulse-tension in the differential diagnosis of chronic interstitial nephritis.

THE STAND OF AN ORGANIZED PROFESSION IN GERMANY.

An interesting war has been in progress in Germany for many months. We have had much to say in our news columns concerning this conflict between the medical profession and the semi-official sick benefit and insurance societies (*Krankenkassen*). These workingmen's organizations are authorized and controlled to a certain extent by the government, and membership is compulsory. Recently, it appears, the law was changed doubling the length of time for which the members are entitled to medical treatment in case of sickness; and attempts have been made by the *Krankenkassen* to further reduce the compensation of the physicians, already ridiculously low. The result has been that the refusal of the physicians to serve under these conditions, which had been the result in one city, has extended to many other localities. The late numbers of our German exchanges contain standing advertisements warning physicians against taking positions in these *Krankenkassen*. In a few cases outsiders have assumed the work, but such have been few, and a recent development of the case is that the government itself has had to interfere. In the city of Cologne, for example, where the number of physicians obtained from the outside was very much less than the ratio established by law, the societies have been informed that they must immediately fill the quota. Being unable to do this, they have been obliged to discharge their outside employed physicians and take back the original ones on the terms demanded.

The German physicians have our fullest sympathy in their contest against the oppressive treatment by the workingmen's societies. The ideal for which they are striving in their dispute is the *Freie Arztwahl*, the privilege of free choice of physicians as opposed to the present contract system, and they compliment us by calling this the American plan. There is no sentimental element here that can be used in favor of the laboring classes. They act as do the most grasping and heartless monopolies and even outdo them in oppression. Human nature is much the same in all classes; if the workingman has the chance to oppress, he will take advantage of it to the fullest extent, as is seen in our own country. There is no reason why an honored and learned profession should be sweated in this outrageous way. The facts, as they come to us, are a warning for us to do all that we can to prevent the evil of club practice being introduced in this country.

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[1] Deutsches Archiv für klinische Medicin, vol. lxxix, Nos. 5-6, p. 541.

Apropos to this subject, we may mention another peculiar situation which recently occurred in Germany, somewhat different from the one above mentioned. In Wiesbaden the physicians attending and acting in a local post-graduate course which was established by the government considered themselves grossly insulted by one of the medical government officials. The result was a most decided protest and a refusal to take part in the organization either as attendants or lecturers; and the offending official was ultimately obliged to make the best of his unfortunate position and resign. Experience will ultimately teach those whom it most concerns that our German confrères are altogether too gritty and are getting to be too well organized to be successfully ground between the lower and upper millstones of workingmen's *Krankenkassen* and arrogant officialism.

THE PROPOSED REORGANIZATION OF THE ARMY MEDICAL DEPARTMENT.

We publish elsewhere in THE JOURNAL[1] an account of the legislation now pending in Congress in regard to the Army Medical Department. It is well known to the profession that the status of the Army Medical Department, especially as regards the chances for promotion, is not at all satisfactory. The result is that there have been fewer applications for admission to the body and a larger number of resignations. To make the service more attractive and better able to meet the needs of the Army, a bill[1] has been introduced which provides for a reasonable number of physicians of the higher grades, thus removing the objections which exist in the present condition of affairs. Another important change of especial interest to the profession is that which provides for an army medical reserve corps. This will open a field for ambitious students, and give them at once a certain authorized medical status and the assurance of an army rank in case of war, provided they wish to accept it. This provision of the bill will be a popular one, and will have effects perhaps more beneficial and far-reaching than have been anticipated. The opportunity which is provided for instruction in the Army Medical School when there are vacancies, is itself a very desirable feature, which, we believe, will add to the attractions of the service, and the value of such a corps to the nation in case of emergency can not well be overestimated. We trust that our readers will use their influence to further this legislation so far as it is possible for them to do so. It is gratifying that the War Department takes the enlightened view of the subject that it does.

IN THE FIELD OF MEDICAL JOURNALISM.

With the new year a number of changes in medical journals are to be noted. Some have succumbed in the struggle to make ends meet, some have been merged into others, and in some communities new journals have come into being to aid the spread of medical science among the members of the profession. Among the latter are the *Los Angeles Medical Journal* and the *Medical Reporter*, the latter being from Shreveport, La. If one may judge by the first few numbers of these monthlies, they will be of value to the local profession, in the broad but practical scope of their contents. We have often referred to the shortsightedness of the practitioner who does not take, or who fails to read, at least one weekly scientific medical journal, national in character, that he may keep up with the current practice of his profession. At the same time, he should take his local publication and support it enthusiastically. Such a journal has a sphere of usefulness as a representative of the physicians and as the mouthpiece of the organized profession of the territory it covers. Where two or more journals draw for support from the same field, consolidation will avoid waste and make for a better journal. It may reduce the number of editors, but it will benefit the readers and the profession as a whole. There are a few exceptions where rivalry is a stimulus to excellence. The value of consolidation is recognized in the recent merging of the *Medical Dial* into the *Northwestern Lancet*, these two journals having for some time occupied the same field in Minnesota. Both of these journals have been very ably edited, and the *Lancet* should now be better than ever. The *Journal of the Kansas State Medical Society* has absorbed the *Wichita Medical Journal* and the *Western Medical Journal*. This leaves only one medical journal in Kansas, and though a small publication, it is an able and wide-awake representative of the profession of the state. Quality is preferable to quantity, and growth will follow. Among other changes we note the suspension of the *Journal of Tuberculosis*, and the consolidation of the *Archives of Pediatrics* and the *International Medical Magazine* under the name of the former.

SUPPRESSION OF A MEDICAL MEETING.

The antituberculosis crusade prevailing throughout the civilized world has had an unexpected effect in at least one quarter. According to correspondence in the London *Lancet*, a medical convention held last month in St. Petersburg was dispersed by the police. This sounds rather strange to us, but it seems to be the order of things in Russia. The medical men present, in their zeal for the suppression of the tuberculosis scourge, demanded freedom of speech and of instruction by newspapers and lectures, a demand which the Czar or the powers behind his throne considered subject for police interference. It is possible, the correspondent says, to give lectures on hygiene, ventilation, etc., in Russia, but any systematic attempt at this falls under the suspicion of the police, some political motive is suspected, and the scientific lecturer on sanitation may find himself banished to Siberia. The convention, however, did more than to ask for the education of the public. The evils of overcrowding, which are so obvious in relation to the subject of tuberculosis, were especially emphasized as occurring in the crowded ghettos of the Jews. There are some 5,000,000 Jews, it is estimated, in Russia, and those who inhabit the larger towns are compelled to live in special quarters, cut off from fresh air and country life. The artificial concentration of the Jews in the special quarters allowed them is an evil that the hygienists felt called on to notice. In the present state of the official mind it was only a provocation, the result of which is shown as above. We do not wish to prejudice anybody against the Russians or Russian administration at the present time, but it is very unfortunate that such an event as the suppression of a scientific congress for simply doing what every scientific physician must consider was its duty should have occurred. As the *Lancet* correspondent remarks, whenever practitioners of Russia assemble and touch on such subjects, they are accused of dabbling in politics, and it is fortunate if some of them are not arrested and imprisoned. "How medical science and sanitation can progress under such conditions is a question that the Russian government must be left to answer."

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[1] See page 605 of this issue.

DECAYING FISH AND LEPROSY.

Dr Jonathan Hutchinson's theory that the eating of badly preserved fish is the chief, or, indeed, almost the sole cause of leprosy, recently has been revived in a number of the daily newspapers. For this reason it may be well to refer to some work that has been done in this connection. Professor Hansen of Norway, the discoverer of the bacillus of leprosy, tried for several years to find the lepra bacillus in tainted or fresh fish. He also tried to determine the possibility of such material being a source of leprosy in any way. His investigations were apparently without success. Except Dr. Hutchinson himself, there is no authority on leprosy, so far as we know, who advocates the theory. Dr. Isadore Dyer of New Orleans, who is our American expert on leprosy, having ample opportunity for the study of the disease among the lepers of Louisiana, has investigated the possibility of Dr. Hutchinson's theory being true, and continues to pronounce against it as he did during the lepra conference at Berlin in 1897. During last year a number of English and Anglo-Indian physicians, who have been studying leprosy in India, gave their opinions with regard to the dried-fish theory of the origin of leprosy. One of them brought forward the details of 102 cases of leprosy which had occurred in patients who had in India lived exclusively on rice, and who had never tasted fish. Dr. William Hynsey, who is very well known as a conservative observer and distinguished medical authority in India, declares that though dried fish is used universally all over the island of Ceylon, leprosy is confined to a few scattered villages along the coast. If fish in a poor state of preservation were the cause of leprosy, then the disease should be much more common in the interior, the fish becoming tainted during carriage inland, owing to primitive methods of curing. It is just there, however, that leprosy does not exist at all. Dr. Hutchinson's theory has been before the public now for many years. Ever since the discovery of the bacillus of leprosy, observers in many parts of the world have been striving to find the bacillus in fish. Almost needless to say, it would be one of the landmark discoveries of all time if it should be found there, and would mean enduring fame for the discoverer. Notwithstanding the stimulus to investigation that such considerations afford, no sign of the bacillus of leprosy, either in fresh or tainted fish, has ever been discovered. Dr. Hutchinson confesses that such a discovery must eventually be the crucial test of his theory, and he looks forward with confidence to the time when the micro-organism shall be found as a parasite of spoiling fish. He has been thus expectantly looking forward, however, for over a decade of years now, and not the slightest confirmation of his theory has come. The whole discussion in the newspapers is a bit of that popular science that unfortunately sometimes attracts attention to subjects that deserve not to be mentioned at all. The abuse of the fish diet, however, as regards the use of decaying fish, is not a matter we are now discussing. Its causation of temporary disorders is evident, and it may easily be a predisposing factor in many serious diseases.

Medical News.

(The Journal goes to press Wednesday morning.)

ILLINOIS.

Hospital Day in Evanston.—February 14 was "Hospital Day" in Evanston churches, and about $6,500 was subscribed for the support of the Evanston Hospital for the current year.

Improved Medical Service.—The medical staff of Cook County Institutions, Dunning, has been increased by five. The consulting staff will be composed of one specialist each in internal medicine, tuberculosis, insanity, pathology and surgery.

Society Donates Library.—The Peoria Medical Society has offered its library of about 1,000 volumes to the Peoria Public Library on the condition that they be placed in a separate room and constitute a medical department of the library.

Personal.—Dr. and Mrs. Frederick W. Werner, Joliet, start to-day for a tour of Mexico and California. They will return in about a month.——Dr. Nicholas Senn, Chicago, has been made a corresponding member of the Surgical Society of Paris.——Dr. and Mrs. John B. Murphy, Chicago, have gone to California.

Chicago.

Perilous Economy.—The finance committee of the city council has denied the requests of the health commissioner for increases of $15,000 for vaccination expenses; $10,000 for antitoxin; $32,000 for more sanitary inspectors, and $2,500 for more tenement-house inspectors.

Pneumonia and Consumption.—There were 170 deaths reported from pneumonia during the week ended February 20—a little more than one-fourth (26.1 per cent.) of the total 651 deaths from all causes. Since the first of the month there have been 496 pneumonia and 195 consumption deaths reported, and since the beginning of the pneumonia season, Nov. 1, 1903, there have been 1,831 pneumonia and 863 consumption deaths reported. Out of the total of 8,757 deaths from all causes reported during the period consumption caused 9.8 per cent. and pneumonia 20.9 per cent.

MARYLAND.

No Commemoration Exercises.—The Johns Hopkins University, Baltimore, omitted celebration of Commemoration Day this year owing to the fire. For twenty-seven years it has celebrated February 22 with public exercises and an address.

The Baltimore Fire Losses.—It is now known that sixty-eight warehouses, widely scattered, belonging to the Johns Hopkins Hospital, Baltimore, were destroyed in the fire. The general office of the hospital on Holliday Street having been destroyed, it is impossible to estimate how much insurance may be recovered. It is said that the income from the burned buildings was devoted to the free work of the hospital, which will suffer along with the clinical facilities. The origin of the fire is still a mystery; the owners and occupants of the Hurst store where it began deny most positively that there was any gasoline in it. The loss of life still remains one. As we go to press a report, as yet unconfirmed, has reached Baltimore that John D. Rockefeller has given $1,500,000 to the Johns Hopkins Hospital to enable the institution to tide over its losses in the fire and to avoid abandonment of its free dispensary work.

MASSACHUSETTS.

Nurses Urge Registration.—The nurses of the state are very earnestly urging the passage of a law to permit their registration similar to the laws already enacted in New York, New Jersey, North Carolina and Virginia.

Personal.—Drs. C. M. Hutchinson, Myron L. King and Arthur Moll are the newly-elected members of the board of medical inspectors for the public schools of Cambridge.——Dr. Fritz Walter Gay has been appointed pathologist to the Malden City Hospital.

Physician Robbed.—On February 3 Dr. William A. Hale, Boston, was lured to a hallway by some colored men on the pretense of a sick friend, beaten and robbed of $200. His assailant has been caught and identified and is held under $2,000 bonds for trial.

Gifts Present and to Come.—By the will of Miss Mary Sophia Walker of Waltham, $5,000 is left to the Waltham Hospital, and to the Boston Lying-in Hospital, Children's Hospital and the Wellesley Convalescent Home $1,000 each. The bulk of the estate, between one and two millions of dollars, is left for the erection of an Episcopal Cathedral, and in the event of the church failing to carry out her requests, the Massachusetts General Hospital is to receive $50,000.

Disease and Death.—During the four weeks ended February 20 there were reported to the board of health in Boston 848 deaths, a decrease of 112 from the same period last year, equivalent to an annual mortality of 18.82 per 1,000. There were 178 cases of diphtheria, with 14 deaths; 130 of scarlet fever, with 5 deaths; 27 of typhoid fever, with 5 deaths; 740 of measles, with 10 deaths, and 152 of tuberculosis, with 100 deaths. Pneumonia was the cause of death in 143 cases; whooping cough in 3, heart disease in 92, bronchitis in 30, and marasmus in 13. The general improvement in health over similar periods in former years, and especially the low number of deaths from pneumonia, 40, 29, 32 and 42 for the weeks noted respectively, may be attributed to the constant covering of the streets with snow, and the success of the street railway company in keeping its surface and elevated cars well heated.

MICHIGAN.

Smallpox.—At the Pittsburg mine, near Bay City, eight cases have been reported.——Mendon has six cases.

Pneumonia Reportable.—Beginning Jan. 1, 1904, health officers have been required to make reports of pneumonia in the same manner as consumption, diphtheria, typhoid fever, scarlet fever, measles, whooping cough, meningitis and smallpox are reported.

Griswold Pardoned.—Dr. Roy W. Griswold, Bay City, sentenced a year ago to two years' imprisonment for causing the death of a woman by a criminal operation, has been pardoned, on the affidavit of the chief of police of Bay City that the operation for which Dr. Griswold was tried and sentenced was performed in Detroit. The prosecuting attorney also favored the pardon.

Prevalence of Disease.—For the month of January, compared with the preceding month, influenza, diarrhea, measles, smallpox and remittent fever were more prevalent, and typhoid fever, whooping cough and meningitis were less prevalent. For the month of January, compared with the average for January in the ten years, 1894-1903, typhoid fever, measles, diphtheria and smallpox were more than usually prevalent, and pneumonia, intermittent fever, erysipelas, inflammation of bowels, remittent fever, dysentery, whooping cough and meningitis were less than usually prevalent.

Communicable Diseases.—Including reports by regular observers and others, meningitis was reported present in Michigan during January, 1904, at 8 places, whooping cough at 22 places, typhoid fever at 93 places, pneumonia at 98 places, diphtheria at 101 places, measles at 102 places, smallpox at 122 places, scarlet fever at 195 places, and consumption at 195 places. Reports from all sources show meningitis reported present at 1 place less; whooping cough at 3 places more; typhoid fever at 24 places less; diphtheria at 1 place more; measles at 40 places more; smallpox at 32 places more; scarlet fever at 23 places more; and consumption at 6 places less, in January, 1904, when compared with the preceding month.

Mortality During January.—There were 3,126 deaths reported for January, corresponding to a death rate of 14.7 per 1,000 population. The number was 184 larger than that registered for the preceding month, and is also greater than the number for January, 1903. By age there were 490 deaths of infants under 1 year of age, 210 deaths of children aged 1 to 4 years, and 982 deaths of elderly persons over 65 years of age. The age distribution was practically the same as for the preceding month. Important causes of death were as follows: Pulmonary tuberculosis, 176; other forms of tuberculosis, 25; typhoid fever, 57; diphtheria and croup, 83; scarlet fever, 34; measles, 12; whooping cough, 19; pneumonia, 412; influenza, 101; cancer, 134; accidents and violence, 180.

MISSISSIPPI.

Smallpox in Yazoo City.—Five cases of smallpox are reported in Yazoo City. Quarantine has been established.

Prosecute Illegal Practitioners.—Dr. Hyman M. Folkes, Biloxi, member of the State Board of Health, has employed an attorney to prosecute all violators of the medical practice act in the Sixth District. Under th[illegible] Doty has convicted Dr. John M. Smith of [illegible] practice. It seems that Dr. Smith, while a resident of Louisiana, had secured a non-resident license from the Mississippi State Board to practice in counties contiguous to the Louisiana parish, of which he was a resident. On this license he undertook to practice in the state of Mississippi, moving from his Louisiana home to Poplarville, Miss., where he has been practicing for the past five years on this license. He appealed the case, but precedent shows that he has no chance of winning his contention in this state.

State Board of Health Named and Confirmed.—The governor has appointed the following as a state board of health for a term of four years: Drs. Walton S. Green, Aberdeen; W. H. Harrison, Tutwiler; Jefferson D. Smythe, Greenville; Benjamin F. Ward, Winona; G. H. McNeil, Newton; Jefferson D. Donald, Hattiesburg; Ernest P. Jones, Hermanville, and John H. Rhodes, Jackson. He also confirmed the following nominations for the state at large made by the Mississippi State Medical Association: Drs. J. Augustus Crisler, Yazoo City; William M. Paine, Aberdeen; John R. Tackett, Meridian; Peter W. Rowland, Oxford, and John F. Hunter, Jackson.——At the meeting of the board for organization at Jackson, February 16, the following officers were elected: President, Dr. Benjamin F. Ward; secretary and chairman of the executive committee, Dr. John F. Hunter, and executive committee, Drs. Walton S. Greene and John R. Tackett.

MISSOURI.

Physician Against Physician.—In the suit of Dr. M. Pinckney Morrell, St. Louis, against Dr. Joseph J. Lawrence of the same city for $16,000 for services rendered the son of the latter, the jury gave a verdict of $12,666 for the plaintiff.

Smallpox Rages.—An epidemic of smallpox is said to have been raging in Greenbrier and vicinity since June, 1903. In all about 150 cases have occurred, and the type of the disease is progressively becoming more severe. Three deaths have occurred thus far.

Anti-Spitting Ordinance Recommended.—Butler County Medical Society, at its January meeting, unanimously endorsed resolutions recommending the enactment and enforcement of an ordinance making it a punishable offence for anyone to expectorate on the sidewalks of Poplar Bluff.

Will Reorganize Medical Department.—Major Daniel Morton, surgeon, N. G., M., has been appointed acting chief surgeon of the National Guard of the state. His first duty will be the reorganization of the medical department and hospital corps of the state to accord with the provisions of the Dick bill.

Pneumonia Leads.—During January 272 deaths occurred from pneumonia, in St. Louis; in January, 1903, only 118 deaths from this cause were reported. The deaths for the week ended February 6 numbered 219, of which 42 were due to pneumonia, and 19 to consumption. For the week ended February 20, pneumonia still leads with 36 out of 214 deaths, consumption following with 26 deaths.

Personal.—Dr. Robert H. Goodier, Hannibal, has been appointed a member of the State Board of Health, vice Dr. Benjamin G. Dysart, deceased.——Dr. Jacob S. Triplett, Harrisonville, has been appointed secretary of the Cass County Board of Health.——Dr. Henry S. Atkins has succeeded the late Dr. Edward C. Runge as superintendent of the St. Louis Insane Asylum.——Dr. Jules M. Brady has returned to St. Louis after a year in Vienna.——Dr. John H. Simon, health commissioner of St. Louis, is seriously ill with pneumonia.

NEBRASKA.

Smallpox at State University.—Smallpox has appeared in Lincoln, and has caused the closure of one of the fraternity houses.

Hospital Fair a Success.—The fair recently held in Kearney for the benefit of the new hospital yielded net proceeds exceeding $2,000.

Omaha's Health.—During 1903 Omaha had no epidemic of any kind. The deaths numbered 967, a mortality rate of 9.38 per 1,000.

Physician Wins Suit.—Dr. Joseph H. Thompson, Albion, secured a verdict in his favor in the damage suit for $5,000, brought against him by James Brown for alleged malpractice.

Personal.—Dr. George E. Spear, Lincoln, has the honor of being the first resident physician of St. Elizabeth's Hospital in that city.——Dr. Owen B. Canfield, Edgar, is seriously ill with spinal disease.

Must Report and Pay Postage.—The attorney general has handed down the opinion that physicians must report to the State Board of Health all cases of contagious disease, including smallpox, cholera and yellow fever, and further, that they must pay postage on such reports.

Saunders County Medical Society.—At the annual meeting held in Wahoo, Dr. Alexander S. Von Mansfelde declined reelection as president. Dr. Joseph P. Percival, Prague, was then elected president; Dr. Frank Fornholm, Wahoo, vice-president; Dr. Mary A. Quincy, Ashland, was re-elected secretary, and Dr. John G. Smith, Wahoo, treasurer, and Dr. William J. Pinkerton, Mead, censor. The organization was organized in January, 1903, with a membership of 10; since then eight have joined, so that at present 18 out of 26 practitioners in the county are members.

NEW YORK.

Personal.—Dr. William E. Ard, for several years surgeon to the Binghamton City Hospital, has removed to New York City and entered into partnership with Dr. J. Gorse Simmons.——Dr. James E. Kelsey, Theresa, has gone to Cuba.

Practical Tests for Candidates.—The five candidates for the position of superintendent of the new state hospital for tuberculosis were each required to examine five patients, tuberculous or pseudo-tuberculous, and discover and report the physical condition of each.

Buffalo.

Children's Hospital.—The eleventh annual report of the Children's Hospital shows that the average daily number of patients has been almost double that of former years. The incubators in use have been so successful that it has been necessary to add four to the original two, and they have been in almost constant use.

January Deaths.—The report of the department of health for January shows an annual death rate of 14.43 per 1,000. The principal causes of death were as follows: Consumption, 46; cerebrospinal meningitis, 3; diphtheria, 10; typhoid fever, 13; debility, 31; cancer, 21; apoplexy, 19; cerebral tumor, 4; meningitis, 20; valvular disease of the heart, 29; bronchitis, 16; pleurisy, 1; pneumonia, 54; appendicitis, 3; nephritis, 24, and violence, 25. The total deaths for January were 457, as compared to 441 deaths in January, 1903.

New York City.

Concert for Hebrew Charities.—A concert was given in the Montauk Theater, Brooklyn, January 31, for the benefit of three Brooklyn Jewish charities. More than $10,000 was realized, of which one-third will be given to the Hebrew Hospital.

Honor Re-elected President.—The Society of German Physicians of Brooklyn at its annual banquet did especial honor to Dr. John H. Droge, president and president-elect of the society, under whose administration the membership of the club has materially increased.

Bellevue Authorities Exonerated.—Coroner Jackson, after hearing the evidence, directed the jury to exonerate the Bellevue Hospital authorities from the charge of brutality in the case of Adolphus Drucker, the English member of parliament who died in the alcoholic ward of the hospital in December last.

Must Not Use Saliva on Transfers.—The board of health of New York City has issued a mandate forbidding street-car conductors to moisten their fingers with saliva in order to separate the transfers before dealing them out to passengers. Fears of disseminating disease germs caused this action of the board.

Conrad Escapes.—Dr. Edward E. Conrad, who was arrested, February 12, at the instance of the New York County Medical Society, on the charge of attempting to perform an illegal operation, has been released. The grand jury, on February 17, dismissed the complaints against him, and against the nurse arrested with him.

Surgical Kits for Fire Trucks.—The first installment of 25 leather cases has been delivered to the hook and ladder companies of the city. The cases were designed by Dr. E. Benjamin Ramsdell, chief surgeon of the fire department, are of heavy black leather, twenty-two inches long, and contain sterilized gauze and cotton, iodoform, emergency medicines, forceps, scissors, tourniquets, trays for disinfectants, needles and splints, and other necessary articles. They will be strapped under the seat of each truck.

To Relieve Non-Pulmonary Tuberculous Children.—At the last meeting of the Association for Improving the Condition of the Poor, $15,000 was appropriated for the maintenance at the seaside of 50 children suffering from non-pulmonary forms of tuberculosis. According to Dr. Biggs of the health department, there are in the New York tenements alone from 3,000 to 4,000 children under 15 years of age suffering from tuberculosis of the bones, joints and lymph glands. Tuberculosis of the lungs affects but a relatively small number of children under 15.

OHIO.

National Guard Medical Examining Board.—The adjutant general has announced the appointment of Major Lovett T. Guerin, Captain Sterling B. Taylor and Captain Cassius M. Shepard, all of Columbus, as a board to examine individuals recommended for commission in the medical department of the National Guard.

Cleveland Water Is Bad.—Dr. Howard, city bacteriologist, who has made tests of the water from the new tunnel, just completed, reports it infected with typhoid bacilli. The tunnel cost in all in the neighborhood of $10,000,000, and extends five miles into Lake Erie. There is said to be over 500 cases of typhoid in Cleveland at present.

Medico-Military Appointments.—Dr. Frank W. Hendley, formerly superintendent of the Cincinnati Hospital, has been appointed major and surgeon, and assigned to the First Infantry.——Dr. Charles Cullen, Cincinnati, has been appointed first lieutenant and assistant surgeon and assigned to the same regiment.——Dr. Franklin B. Entrikin, Findlay, has been commissioned major and surgeon and assigned to the Second Infantry.

Society Elections.—Logan County Medical Society.—At the annual meeting in December, the following officers were elected: President, Dr. Lester C. Pratt; vice-president, Dr. John S. Deemy; secretary, Dr. Simon Morgenroth; treasurer, Dr. Perry D. Covington, and censors, Drs. Abraham L. Huston, John S. Deemy, and Lester C. Pratt, all of Bellefontaine.

Academy of Medicine of Cleveland.—At the second annual meeting held December 18, the following officers were elected: Dr. George W. Crile, president; Dr. William E. Bruner, vice-president; Dr. Edward Lauder, secretary; Dr. Oscar T. Thomas, treasurer, and Drs. William O. Osborn and Hunter Robb, trustees.

GENERAL.

Home for Blind Lepers.—At the leper settlement in Molokai, Hawaii, there has just been completed a home for blind leper women, the gift of Charles R. Bishop.

Missouri Valley Medical Society.—The spring meeting of this association is to be held in Lincoln, Neb., March 24 and 25. The program announces some excellent papers and practical subjects, and that several clinics are to be held by local physicians.

Smallpox on Battleship "Maine."—The United States battleship *Maine*, on her arrival at Guantanamo, Cuba, February 18, was quarantined because of a number of cases of measles and one case of smallpox on board. The latter has been taken to the hospital on the quay. The auxiliary cruiser *Yankee* had one case of measles on board, which was isolated on a lighter in the bay.

Special Pullmans for Consumptives.—As the result of agitation on this subject, and especially following the recommendations of the United States Public Health and Marine-Hospital Service, it is announced that the Pullman Company will add to its equipment hospital cars to run to California on certain days each week, in which consumptives and other sick persons must travel, ordinary Pullmans being reserved for persons in health.

Yellow Fever Investigation.—The delegation of health officers of Louisiana, Mississippi and Alabama was cordially welcomed in Mexico and had a very successful tour. The officers report unofficially that the sanitary measures (drainage, etc.) which they would recommend in some Mexican cities may be more expensive than the municipalities can afford. One recommendation is a system of inspection by health officials. Their full report will be issued later.

Leprosy Committee.—The committee on leprosy of the Second Annual Conference of State and Territorial Health Officers with the United States Public Health and Marine-Hospital Service has been announced as follows: Dr. Charles B. Cooper, president of the Territorial Board of Health, Honolulu, chairman; Dr. J. F. Smith, secretary of the Superior Board of Health, San Juan, Porto Rico, and Dr. J. C. Nolte, secretary of the Louisiana State Board of Health.

Physicians to Visit Rome.—A number of the physicians of Paris, who are united under the patronage of Saints Luke, Cosmas and Damien, three saints who were also medical men in the olden times, have decided to make a pilgrimage to Rome, April 5-14, 1904, and extend an invitation to physicians throughout the world to accompany them. First class the price is to be about $70; second class, less than $60; and third class less than $50 for the round trip from Paris to Rome and back, including all railroad expenses, hotel expenses at Rome for six days, for carriages, interpreters, guides, fees for museums, tips, etc. Pope Piux X, it has been arranged, will receive the physicians in private audience and will grant them the privilege of a visit to the gardens of the Vatican, which is never allowed to ordinary visitors. The families of physicians are admitted to all the privileges physicians will receive. Application must be made before the end of February and the price of the trip paid before March 10 to M. le Docteur H. Dauchez, secretary general of the Society of St. Luke, 5 rue Bayard, Paris, France.

Examination for Marine-Hospital Surgeons.—The surgeon general of the U. S. Public Health and Marine-Hospital Service announces that there will be an examination at the bureau, 3 B Street, S. E., Washington, D. C., Monday, April 4, 1904, at 10 a. m., of candidates for assistant surgeonships. The candidate must be between 22 and 30 years of age, graduate of a reputable medical college, and must furnish testimonials from responsible persons as to his professional and moral character. In addition to the physical examination, candidates are required to certify that they believe themselves free from any ailment which would disqualify them for service in any climate. The examinations are chiefly in writing, and begin with a short autobiography of the candidate. The remainder of the written exercise consists in examination on the various branches of medicine, surgery and hygiene. The oral examination includes subjects of preliminary education, history, literature, and natural sciences. The clinical examination is conducted at a hospital, and when practicable, candidates are required to perform surgical operations on a cadaver. Successful candidates will be numbered according to their attainments on examination, and will be commissioned in the same order as vacancies occur. On appointment the young officers are, as a rule, first assigned to duty at one of the large marine hospitals, as at Boston, New York, New Orleans, Chicago or San Francisco. After five years' service, assistant surgeons are entitled to examination for promotion to the grade of passed assistant surgeon. Promotion to the grade of surgeon is made according to seniority, and after due examination, as vacancies occur in that grade. Assistant surgeons receive $1,600; passed assistant surgeons, $2,000, and surgeons, $2,500 a year. When quarters are not provided, commutation at the rate of $30, $40 and $50 a month, according to grade, is allowed. All grades above that of assistant surgeon receive longevity pay, 10 per cent. in addition to the regular salary for every five years' service up to 40 per cent. after twenty years' service. The tenure of office is permanent. Officers traveling under orders are allowed actual expenses. For further information, or for invitation to appear before the board of examiners, address the surgeon-general, as above.

CANADA.

Personal.—Dr. Claude W. Freeman has been appointed medical superintendent of the Hamilton City Hospital.

To Improve Marine Hospital at Victoria.—The government has appropriated $3,000 toward the Marine Hospital at Victoria, B. C., for much-needed improvements.

Toronto General Hospital.—This hospital has accommodation for 425 patients daily, but the usual average is between 250 and 300. During the year over 3,300 patients are treated in the wards, and about 16,000 in the outdoor departments. It has the largest number of beds of any hospital in Canada.

Generous Gift to Science.—Lord Strathcona has given $20,000 to Manitoba University for the extension of the science department. This timely gift will enable the university to commence development at once. When the sum given may be exhausted, the disposal of a large portion of lands held by the university will provide a yearly revenue fully adequate for all pressing university purposes.

Toronto University Hospital.—The authorities of the University of Toronto and the medical faculty thereof are considering the possibility of erecting a hospital for all classes of patients near the new medical building, to make better facilities for the medical students. If this is not carried out in the immediate future, it is altogether likely that a small building will be erected for outdoor clinics.

Montreal General Hospital Annual Meeting.—At the eighty-second annual meeting of the corporation and board of governors of the Montreal General Hospital, last week, the medical report showed that the total number of patients which passed through the wards in 1903 was 3,066, against 2,878 in 1902, or an increase of 188. The outdoor patients numbered in 1903 35,984, as against 31,993 in 1902, an increase of 3,991.

Sanitary Barber Shops.—A bill before the Ontario legislature seeks to prohibit and regulate the admission to barber shops of persons suffering from disease, to provide for the regular and efficient cleansing of shops and instruments, to secure the personal cleanliness of the barbers, and sanitary condition of the premises, and to prohibit the employment of any one as a barber while suffering from any infectious, contagious or communicable disease.

War Against Patent Medicines.—The Ontario council of the Royal Templars, at a recent session in Toronto, discussed the amount of alcohol in patent medicines, which, by expert analysis, is shown to be from 14 to 40 per cent. Since several of those with the higher percentages are purchased purely for the liquor in them, it was decided to ask for legislation prohibiting the sale of all such medicines which contain a greater percentage of alcohol than is necessary to preserve them.

Canada to Guard Against Diseased Immigrants.—We have mentioned the alarm of the Canadian government over the number of immigrants allowed to enter Canada each year suffering from trachoma and favus. Last year a small house was rented in Quebec as a temporary hospital in which as many as 220 immigrants suffering from these diseases were huddled at one time. It is proposed to erect a detention hospital in Quebec, to care for such persons until they can be sent out of the country.

Dental Changes in Quebec.—An important meeting of the Dental Association of the Province of Quebec was held last week in Montreal, which, after a rather stormy discussion, endorsed the action of the board of examiners in their recent negotiations with McGill and Laval universities. This means that the present Dental College of the Province of Quebec will be abolished, McGill furnishing the dental course for English-speaking and Laval for French-speaking students. McGill, however, declines to grant the degree of doctor of dental surgery until three years after graduation and then on condition of the applicant writing a technical thesis to be approved by the board. The degree they will grant on graduation is master of dental surgery. Laval will grant the D.D.S. on graduation. The term will be lengthened to nine months and the course of study will remain four years. McGill's course will be a department of the medical faculty.

FOREIGN.

Diphtheria Epidemic in Mexico.—Eleven deaths from diphtheria in one day are reported in Guadalajara, Mexico. The epidemic is severe.

Ziehen Called to Berlin.—The chair of psychiatry left vacant by the death of F. Jolly has been given to Ziehen of Halle, who enters on his duties April 1.

Sanatorium for Physicians in Russia.—A fund is being raised in Russia to construct a sanatorium in the Crimea for physicians needing a trip to a southern climate.

Fire in Scottish Hospital.—A fire, February 12, at Broomhill Home for Incurables, Kirkintilloch, Stirlingshire, Scotland, did damage to building and equipment, but caused no loss of life.

Edinburgh Schools Short of Dissecting Material.—Medical schools in Scotland are said to be short of bodies for dissection, owing to objection on the part of the poor-house officials to allow bodies to be used for dissection.

Arguments of Antivivisectionists.—Among the arguments recently presented by some antivivisectionists at Paris was one to the effect that vivisection is of no use to surgery as "the assumed analogy between the organisms of man and of animals is deceptive and misleading. The proof of this fact is furnished by the Americans. They do not practice vivisection and yet they lead the world in surgery."

Damages Claimed from French Alienists.—In 1901, at Paris, a Countess Clozewska fired a blank cartridge at the carriage in which a member of the French cabinet was passing. She was arrested, but was declared irresponsible by the alienists, Drs. Germain, Legras and Vallon, and taken to the Sainte-Anne Asylum. She has recently been set at liberty and has sued each of the experts for $20,000 damages for stating that she was irresponsible, with the consequent detention in the asylum.

The Russia-Japan War.—The Red Cross Society of Russia is taking hold vigorously of its work in the war. Over five million dollars has been subscribed for its purposes, and many trains loaded with supplies have been sent across the continent. M. Alexanderovsky will be in charge on the field. Hospitals on the Amur will be established, and detachments will accompany the regiments into battle in order to be of immediate service. It is planned to have communication with the base hospitals by means of the river and its tributaries. Hundreds of physicians in Russia are reported to have volunteered for service, and many Jews are in the number. The International Committee of the Red Cross has met and made preliminary arrangements for giving assistance to both Russia and Japan in caring for the wounded. Germany has hospitals at Kiao-Chou and at Yokohama, and has notified both combatants that these are at their service for the care of the wounded.

LONDON LETTER.

London's Deficient Ambulance Service.

The need which exists in the metropolis for an efficient ambulance service has been much discussed of late. The matter has been considered by the Metropolitan Asylums' Board, who are willing to supply the demand if the necessary powers can be obtained from parliament. The question was discussed about 10 years ago, but this is a conservative country, and reforms are slow. Apart from the excellent service of horse ambulances of the Metropolitan Asylums' Board, used only for the conveyance of cases of infectious disease to hospital, the only regular service is that of wheeled ambulances used by the police for the conveyance of cases of accident to hospital. But these are much inferior to horse ambulances with accommodation for a nurse as well as for the patient. Yet in many provincial towns excellent ambulance services under the control of the police are provided. For example, there are at Liverpool six fully equipped horse ambulances, which in 1902 attended to 2,759 calls. The ambulance service attached to American hospitals which can be turned out at a moment's notice by telephone does not exist in London. Many hospitals would no doubt be pleased to provide such ambulances, but want of funds and want of space for horses and carriages are bars. The police of the metropolis have been excellently instructed in first aid to the wounded by the St. John's Ambulance Association. In 1901 the number of street accidents in London was 7,995.

A Convalescent Home for Officers of the Army and Navy.

Osborne House, one of the palaces of the late queen, situated on the Isle of Wight, with the magnificent estate attached to it, has been presented by the king to the nation, to be used as a convalescent home for officers of the army and navy. The need for such a home was much felt after the South African war. There will be thirty-eight rooms for single convalescents and five sets of two rooms, or room and dressing room for married couples. For admission the officers must be recommended by the director general of the medical department of the army or navy. There will be a staff of trained nurses. The furniture has been specially devised so as to be as aseptic as possible. Enamel white paint, which contains no lead, is used throughout. The furniture is enameled inside, outside and underneath, so that the absorbent pores of the wood are closed everywhere, and washable surfaces exist on all sides. No angles are allowed; all is rounded off inside the chests of drawers, wardrobes, etc., as well as outside. Around the house are beautiful terraces, a grand stretch of park and sea, and lawn and shrubberies with trees, which break the force of the winds. The climate is that of the south coast, mild and salubrious. For those who can take exercise there is a golf course and twenty-eight miles of good roads for cycling.

The Uses of Radium.

Sir William Ramsay, the distinguished scientist, has delivered a most interesting lecture on radium in which he also dealt with the other radio-active substances, thorium, uranium, polonium, actinium, and an unnamed element discovered by a German professor. Ramsay has found that the gaseous emanation from radium, of which he has collected and measured about the fifth part of a pinhead, is not permanent. It decomposes, and in about a month loses its luminosity. While this is going on the glass tube containing the emanation changes color, in some cases becoming gray and in others purple. The cause of this change is unknown. Radium is constantly decomposing into a luminous gas or emanation, which emanation again decomposes into helium. So far as is known these bodies are elements, and their atom is so heavy that it decomposes. Some investigators hope to accomplish the reverse process, and to build up heavy from light elements. An enormous stride would be made in the knowledge of matter if it were found that elements considered up till now indecomposable and unchangeable are undergoing that universal change which is a fundamental law of nature.

The Vital Statistics of Ireland.

The report on the vital statistics of Ireland, which has just been issued for 1902, is of interest, because it throws light on the social condition of the country. The birth rate has remained practically stationary during the last 20 years; it was 23.5 in 1883 and 23 in 1902. During the same period the English birth rate has declined from 33.5 to 28.5. The lower birth rate of Ireland is explained by the much smaller proportion of women of child-bearing ages in the population—a consequence of emigration. The absence of a fall in the birth rate, which in recent years is so marked, not only in England but in English-speaking countries, is ascribed to the strong religious objections of the Roman Catholics to devices for the prevention of conception. The death rate was 17.5 as compared with 18.2 in an average of the years 1892-1901.

Correspondence.

The Cost of Production of Diphtheria Antitoxin.

DETROIT, MICH., Feb. 17, 1904.

To the Editor:—We have read the editorial, "The Cost of Production of Diphtheria Antitoxin," on page 471 of THE JOURNAL, February 13. It is an interesting article—interesting for what it states, and especially interesting for what it omits to state regarding this responsible, difficult and expensive work. Will you permit us to point out a few of the conspicuous omissions? For example:

Your editorial omits to state what is incontestably true—that the private producers of antitoxin are subject to federal license and to rigid federal supervision, from which the Massachusetts State Board of Health is exempt, since it does not engage in interstate traffic. The representative of the U. S. Public Health and Marine-Hospital Service goes into the biologic laboratories and stables of every private producer in this country and dictates what his equipment shall be. And if the commands of that representative—for commands they are—are not obeyed, the producer's license may be immediately revoked at the pleasure of the bureau.

Your editorial omits to state that the requirements of the bill are so rigid that several of the smaller producers have preferred to abandon the business.

Your editorial omits to state that the private producer must bear the burden of an enormous waste in the form of returned serum. Forty per cent. of his sales comes back for exchange. Every drop of the returned serum is thrown away, as are likewise parts of the expensive injecting device which comes back with the serum.

Your editorial omits to state that each dose of antitoxin sent out by the private producer is accompanied by an injecting device that costs him not less than 23 cents apiece. Taking into account the number of returned packages and the parts of the injecting appliances thus wasted, the actual cost of the device is much greater.

Your editorial omits to state that we are ready and willing to supply the Chicago Board of Health, and every other board of health in the United States, with serum testing 200 units to the c.c., at a price of $0.75 per thousand units, and not at the price of $1.33 which you quote.

Your editorial omits to state that when the physician or the consumer pays $1.33 for a thousand-unit dose of our antitoxin, he receives a serum testing not less than 300 units to the c.c., and that the packages containing the larger doses are filled with the concentrated XX serum—serum which few horses yield, and which is both difficult and expensive to produce.

Your editorial omits to state that it costs the manufacturer something *to obtain and transact* his business. Overlooking that factor, we wonder less at your statement that the current market price "affords a margin larger than would be *deemed absolutely necessary to the profitable and successful* conduct of ordinary commercial undertakings." But the difference between producing cost and selling price is by no means profit. Gross profits are not net profits. Our net profits rarely rise beyond 10 per cent. Do you imagine that "gross profits" and "net profits" are interchangeable terms? Do you make any allowance for the fact that after the expense is incurred, the business gotten and the sale made, 40 per cent. of the product sold comes back, worthless and wasted, for exchange?

We consider your editorial unfair to a class of men who are bearing an enormous responsibility, and who, if they weakly yielded to the clamor for cheap serum, would be mercilessly condemned at the first catastrophe, such as followed fast on the heels of the "municipal enterprise" displayed by the city of St. Louis in the conduct of its own antitoxin plant. As yet, not a life has been lost by the use of contaminated serum, *save where the antitoxin was made in a municipal laboratory.*

Responsibility considered, the manufacture and sale of antitoxin by no means yields the producer a fair profit. If the profit were at all out of the common or above the average, the law of supply and demand would come into play, and capital, seeking profitable investment, would straightway flow into this particular industry. Just at present capital is flowing out of it.

We hope that, in justice to us, you will publish this letter in an early issue of THE JOURNAL.

PARKE, DAVIS & CO.

Marriages.

OTTO V. GREENE, M.D., to Miss Kate Bascom, both of Bethel, Vt., February 24.

HERMAN J. GIERING, M.D., to Miss Agnes Shutler, both of Baltimore, February 6.

JAMES O. SANDERS, M.D., to Miss Frances Rogers, both of Anderson, S. C., February 10.

CLARENCE MILTON SWALE, M.D., to Miss Lillian Gamidge, both of Mason City, Iowa, February 3.

LEWIS L. NEBLETT, M.D., Stayton, Tenn., to Miss Bessie Carlisle of Sadlersville, Tenn., February 10.

GUY SWAN, M.D., Bellefontaine, Ohio, to Miss Grace Ingalls of Huntsville, at Newport, Ky., February 12.

ROBERT JEMISON HARGROVE, M.D., Tuscaloosa, Ala., to Miss Louise Browne of Hattiesburg, Miss., February 9.

EDWARD WRIGHT RUSSELL, M.D., Clearfield, Pa., to Miss Marion Edgerton Carpenter of Dresden, Germany, February 5.

Deaths.

Frederick Granville Winter, M.D. *Long Island College* Hospital, Brooklyn, 1882, of Brooklyn, N. Y., formerly president of the Brooklyn Medical Society, a member of the Medical Society of the County of Kings, and surgeon of the Twenty-Third Infantry, N. G., N. Y., died from the effects of a septic wound, after an illness of eight years, at Kingfield, Maine, February 11, aged 46.

Ephraim P. Russell, M.D. Jefferson Medical College, Philadelphia, 1866, of Hopkinsville, Ky., died at the Walker Sanitarium, Evansville, Ind., February 16, one week after amputation of the right leg above the knee, for gangrene of the foot, the local condition being complicated with serious renal disease, aged 61. He was an active member of the Christian County Medical Society.

Emile A. de Schweinitz, M.D. Columbian University, Washington, D. C., 1894, dean of, and professor of chemistry and bacteriology in the Columbian University; director of the biochemic laboratory of the Bureau of Animal Industry, Department of Agriculture, a member of the American Medical Association, died at his home in Washington, D. C., February 15, aged 37.

Frank Le Roy W. Tetamore, M.D. Long Island College Hospital, Brooklyn, 1882, acting assistant surgeon, U. S. Army, was drowned with a party of eight officers near Manila, P. I., February 10. He was captain and assistant surgeon of volunteers, and a year ago re-entered the service at Caloocan as a contract surgeon.

James M. Laird, M.D. New York University, 1877, an esteemed practitioner of the Kanawha and New River valleys, W. Va., and a resident of Montgomery for twenty-five years, died at Sheltering Arms Hospital, Paint Creek, while under operation for some disease of the throat, February 15, aged 51.

Joseph R. Askew, M.D. University of Pennsylvania, Philadelphia, 1841, died recently at his home in Jacksonville, Ill. At its meeting, February 11, the Morgan County Medical Society appointed a committee to draft resolutions regarding the death of its deceased member.

Maximilian G. Raefle, M.D. Humboldt Medical College, St. Louis, 1861, a surgeon in the Navy during the Civil War, and some-time deputy coroner of New York City, died suddenly at his home in New York City, February 13, from apoplexy, aged 67.

Sereno Edward Dwight Bumstead, M.D. Harvard University Medical School, Boston, 1844, formerly a physician of Port-au-Prince, died at his home in South Framingham, Mass., February 14, from paralysis, aged 81. He retired from practice in 1901.

Charles Augustus Wheeler, M.D. Worcester (Mass.) Medical College, 1857, of Leominster, Mass., a member of the American Medical Association, a veteran of the Civil War, died at the Massachusetts General Hospital, Boston, February 11, aged 67.

Joshua E. Van Camp, M.D. University of Michigan, Ann Arbor, 1870, a member of the American Medical Association, died very suddenly from apoplexy while making a professional call near his home in Carlisle, Pa., aged 60.

Rodger C. Downey, M.D. University of Vermont, Burlington, 1892, a member of the state and county medical societies, died at his home in Middletown, Conn., February 15, from erysipelas, after a short illness, aged 35.

Charles E. Cook, M.D. Chicago Medical College, 1880, some-time coroner of McHenry County, Ill., died at his home in Huntley, February 18, from double pneumonia, after an illness of ten days, aged 51.

Henry Martin Dearborn, M.D. Medical School of Maine at Bowdoin College, Brunswick, 1869, died at his home in New York City, February 16, from pneumonia, after an illness of eight days, aged 58.

John W. Thompson, M.D. Arkansas University, Little Rock, 1887, of Hillsboro, Ark., was shot and killed, February 12, by a brother of Dr. A. A. Finley, who was killed in March, 1903, by Dr. Thompson.

McDuffie Blanchard, M.D. University of Nashville, 1857, assistant surgeon in the Confederate service, died at his home in Columbus, Ga., February 12, from pneumonia, after a short illness, aged 68.

Charles Elliott Denig, M.D. Starling Medical College, Columbus, 1850, surgeon throughout the Civil War, who retired from practice in 1894, died at his home in Columbus, Ohio, February 9, aged 78.

Frank A. Box, M.D. State University of Iowa, College of *Homeopathic* Medicine, Iowa City, 1890, of Pulaski, N. Y., died from pneumonia at the Oswego Hospital, February 11, aged 36.

Joseph Beck, M.D. Physio-Medical Institute, Cincinnati, 1878, died at his home in Eldorado, Ohio, February 17, aged 83.

Lawrence Scott Jones, M.D. Eclectic Medical College of Philadelphia, 1881, died at his home in Harrisburg, Pa., from consumption, February 13, after an illness of one year, aged 40.

Henry Augustine Crary, M.D. Albany (N. Y.) Medical College, 1866, died at his home in Knox, N. Y., December 25, from locomotor ataxia, after an illness of several years.

R. E. Curran, M.D. Louisville Medical College, died at his home in Los Angeles, Cal., February 7, from internal hemorrhage, after an illness of two days, aged 59.

Robert Lautenbach, M.D. University of Maryland, a surgeon in the Army during the Civil War, died from pneumonia at his home in Baltimore, February 16, aged 60.

George E. McCosh, M.D. Bellevue Hospital Medical College, New York, 1866, died at his home in St. Louis, February 13, after an illness of three months, aged 62.

George Beecher Malone, M.D. Detroit Medical College, 1885, of Park Ridge, Ill., died at the home of his son in Chicago, February 17, from pneumonia, aged 54.

Conrad G. Eddy, M.D. University College of Medicine, Richmond, Va., 1900, died at his home in St. Marys, W. Va., February 11, from pneumonia, aged 26.

Adna P. Parsons, M.D. Syracuse (N. Y.) Medical College, 1850, died at his home in Forestville, N. Y., February 13, from pulmonary tuberculosis, aged 87.

Henry Buehler Buehler, M.D. Jefferson Medical College, Philadelphia, surgeon during the Civil War, died at his home in Harrisburg, Pa., February 1, aged 69.

Charles W. Trautwein, M.D. College of Physicians and Surgeons, Keokuk, Iowa, 1895, died at his home in Kinderhook, Ill., February 22, from acute nephritis.

Edward C. Bain, M.D. University of Tennessee, Nashville, 1865, died at his home in Pleasant Plains, Ill., February 14, after a lingering illness, aged 61.

Stephen W. Ransom, M.D. Chicago Medical College, 1870, a member of the American Medical Association, died recently at his home in Dodge Center, Minn.

Albert Trenchard, M.D. Jefferson Medical College, Philadelphia, 1870, died at his home in Glassboro, N. J., February 11, after a long illness, aged 60.

Martin Ireland, M.D. University of Wooster, Cleveland, 1847, died at his home in Columbia City, Ind., February 11, from paralysis, aged 82.

Levi Vincent, M.D. Bennett College of Eclectic Medicine and Surgery, Chicago, 1872, died at his home in Weston, Ill., February 12, aged 77.

George A. Blakeley, M.D. Rush Medical College, Chicago, 1885, of Albany, Wis., died suddenly in Chicago, February 3, aged 46.

William S. Charlton, M.D. University of Pennsylvania, Philadelphia, 1883, died at his home in Philadelphia, February 2, aged 46.

Samuel Miller, M.D. Toronto School of Medicine, died at his home in St. Louis, February 14, after a prolonged illness, aged 82.

Martin E. Brackett, M.D. University of Buffalo (N. Y.) 1891, died, January 2, at his home in Clarendon, N. Y.

William B. Brown, M.D. New York University, 1846, died at his home in Greenville, N. C., Nov. 12, 1903.

T. J. Tabor, M.D. American Medical College, St. Louis, 1876, died at his home in Doyline, La., December 17.

Simon J. Seyfert, M.D. University of Pennsylvania, 1871, died recently at his home in Pine Grove, Pa.

George Clinton Hale, M.D., of Catskill, N. Y., died at his home in that place, January 30, aged 71.

Miscellany.

Egg Albumin and Castor Oil in Burns.—A mixture of castor oil with the white of an egg allays the pain more quickly and causes the wound to heal more rapidly than any other application. The eggs are broken into a bowl, and the castor oil gradually and slowly poured in while the eggs are beaten. Enough oil is added to make a thick, creamy paste, which is applied to the burn with a feather. The applications are repeated often enough to prevent their becoming dry or sticky. It is best to abstain from any dressings, leaving the surface uncovered.—*Med. Fortnightly.*

Formaldehyd.—It may not be out of place to warn postmortem examiners and, especially, those who act as such only occasionally, with regard to an interesting action of formaldehyd, which is now largely used by embalmers. For some hours after somatic death, the vitality of the intestine and stomach remains to such a degree that various muscular contractions take place. This is frequently seen on the lower animals, and in one human necropsy, six hours after death and after the occurrence of postmortem rigidity of the voluntary muscles, we noted spastic contraction of the small intestine following the touch of instruments. Apparently formaldehyd either causes such spasm or at least fixes the unstriped muscle in its contracted state. At any rate, the stomach and intestines may be found of board-like hardness in places and with narrowing of lumen at the sphincters and in the course of the small intestine, so as to suggest antemortem ileus to the uninitiated.—*Medical Fortnightly.*

The Marine-Hospital Service as a Field for the Physician.—In a recent address before the students of Jefferson Medical College, Philadelphia, speaking of the U. S. Public Health and Marine Hospital Service, Surgeon-General Wyman said: I know of no medical service in the world which holds out the same facilities for the professional advancement for its officers. It has at least 15 expert bacteriologists. It offers opportunity and encouragement for continued study, free from the petty annoyances and interruptions of private practice. It keeps its officers supplied with the latest special books, instruments, and apparatus, beyond the reach of many recent graduates. Aptitude and ambition to excel in any branch of medicine, surgery or preventive medicine have in it their full chance of fruition. Because of the extension of its functions by recent act of Congress, it is necessarily a growing service. The corps is being gradually but constantly enlarged. The service was by act of July 1, 1902, placed on a broad and strong foundation, and has but just begun its development on its higher plane. It has a fine record and a brilliant future —and it is free from politics.

Investigation of Mineral Water.—Nearly two years ago the Academy of Medicine of Paris published the report of a committee appointed to investigate the qualities of Apollinaris water, and the findings were unfavorable. This was noticed in The Journal, Sept. 6, 1902. There is probably no other natural table mineral water, so-called, so well known as the Apollinaris, and the case excited considerable general interest, especially since legal action was taken by certain parties charging the Apollinaris Company with the offense, under the English law, of selling its bottled water with a false trade description. In order to settle the question, the London *Lancet* sent a special commissioner to the locality of the springs, and his report is published in full in that journal, January 30. It gives an interesting description of the springs and of the method of obtaining and bottling the water. It appears that the carbonic acid which is derived from the water is conducted into a receiver. The water is tanked off, and a slight amount of salt is added, over and above the natural quantity contained, as a precaution against the decomposition of the sulphate of soda contained in the spring. Then the water is passed through a carbonator and the collected gas is forced back under heavy pressure, and it is bottled for consumption. It would appear from this that this commercial article is what it is professed to be, and as evidence of this it is said that water taken directly from the spring does not differ in any respect in taste or quality from that sold. For the reason that we published the unfavorable report, we can in justice only give the other side.

CLIPPINGS FROM LAY EXCHANGES.

SUCCESSFUL DOUBLE NEPHRECTOMY.

"Removed a Child's Kidneys. Unusual Operation Performed. . . . Yesterday Dr. —— performed an unusual operation . . . known as . . . decapulation of the kidneys. . . . Both kidneys were removed, and the child underwent the operation successfully, although there is not much hope of her ultimate recovery."—*Syracuse* (N. Y.) *Herald*, Nov. 29, 1903.

MEDICINE AND MILLINERY.

"Dr. —— has arranged . . . to open an office for the practice of medicine. He will open up a drug store and a millinery store."—*West Plains* (Mo.) *Journal*, Nov. 12, 1903.

WHAT HAD HE AGAINST THE DOCTOR?

Under the headline of "*Things You Want to Know*" the *Norwalk* (Ohio) *Reflector*, Feb. 8, 1904, gives as the leading item: "Dr. ——, a well-known . . . physician, died at Phoenix, Ariz. . . ."

OPENED THE SPICULA.

In a report of an operation for the relief of traumatic epilepsy, the New York correspondent of the *Chicago Tribune* says: "He opened the spicula and a bone . . . was found imbedded in the brain."

DID HIS PATIENTS INVARIABLY DIE?

"Dr. ——, the expert physician . . . is gone and forever at rest from his labors. . . . As a diagnostician he seldom failed. Exceptions are hard to find where postmortems did not prove the correctness of his diagnosis."—*St. Anne* (Ill.) *Record*, Jan. 29, 1904.

SMOOTH OPERATION ON THE KAISER.

A cable dispatch from Berlin to the *Chicago Record-Herald* of November 9, announcing an operation on the throat of Emperor William says: "Professor Schmidt guarantees the statement that the operation went off perfectly smooth, but he emphasizes as a sine qua non that the Kaiser must not talk."

DEATH FROM SPONTANEOUS BIOPLASM.

"Dr. —— has been at —— to investigate the reported death of two children . . . The deaths, Dr. —— says, did not result from vaccination or the virus . . . but from spontaneous bioplasm in the wounds on the arms of the little ones. Dr. —— is convinced that the vaccination was entirely successful. The children are still dead."—*Fort Wayne* (Ind.) *Gazette*, Nov. 16, 1903.

VERTEBRA REMOVED, CLEANED AND REPLACED.

"Remarkable Surgical Operation—Vertebra Removed and Cleaned to Cure Paralysis Following Broken Neck. Sioux City, Iowa, Dec. 21.—An operation having no parallel in the surgical world was performed . . . to-day. A part of the third cervical vertebra was removed, the false growth of tissue was cleaned out and the bone replaced. The patient is doing well. . . . No other case is known in which the cervical vertebra, situated so near the medulla oblongata, has been removed and replaced."—*New York Tribune*, Dec. 22, 1903.

OPERATOR HAD NERVE.

"Dr. —— . . . performed an operation on a . . . woman, which, while it further establishes his reputation as one of the foremost surgeons of the country, stands as one of the most critical and successful ever performed in the history of surgery. The patient . . . came under the knife, with a goitre, a growth in the throat, which subsequent events showed to weigh 8 lbs. and 8 ounces. It had been broken and was in process of disintegration, with her days apparently not numbered beyond a week. It had to be removed. No anesthetic was given, and for 2 hours and 20 minutes the patient was directly under the knife. During the operation the surgeon's touch or scalpel passed by or rested on the common carotid arteries, jugular vein and laryngal nerve. The deviation of the knife a hairbreadth at certain times would have plunged the patient into eternity. When the operation was done not two ounces of blood had been lost and the surgeon retired, completely exhausted, from the table. An indomitable nerve, fautless skill and powerful strength could only have kept him up to the task."—*Shamokin* (Pa.) *Herald*, Nov. 16, 1903.

THE ARMY MEDICAL DEPARTMENT.

The Proposed Modification—New Legislation Now Before Congress.

The following three bills of importance to the medical corps of the Army have been approved by the Secretary of War and forwarded by him for the action of Congress.

ARMY HOSPITAL AND COLLEGE.

A. To appropriate $400,000 for the purchase of land and the construction of an Army general hospital at Washington. The present general hospital there is a small and unsuitable building on the grounds of the Washington Barracks, which likewise occupies space needed for the buildings of the new engineer post there, which is now under construction. It is proposed to make the new hospital a handsome and modern structure, with sufficient space about it for great extension by the erection of temporary wards in time of war. It will be also the home of the Army Medical School, which now occupies cramped and inadequate quarters at the Army Medical Museum. This school is one of the service schools at which officers of the organized militia are by recent Act of Congress authorized to attend courses with the provision that while so doing they "shall receive from the annual appropriations for the support of the Army the same travel allowances and quarters or commutation of quarters to which an officer of the Army would be entitled and also to receive commutation of subsistence at the rate of one dollar per day while in actual attendance." This liberal and important provision for the special instruction of National Guard medical officers will, however, remain inoperative until room for the extension of the school is gained by the construction of the new hospital. Here also will be stationed a company of instruction of the hospital corps and a detachment of the Army nurse corps. The establishment of such a hospital and school was recommended by the Surgeon General as far back as 1862. When carried out it will correspond with the English Army Hospital School established at Netley after the Crimean War, and with the celebrated French Hospital School at Val-de-Grace established more than a hundred years ago. This hospital will have facilities for the treatment of special medical and surgical cases, and will be provided with all kinds of apparatus, which on account of their expense and special character are not supplied to the hospital at Army posts.

THE SURGEON-GENERAL'S LIBRARY BOOK CASES.

B. For the purchase of book stacks for the library of the Surgeon-General's office, $13,000. An appropriation for this purpose has been unsuccessfully asked for for the past six years, and the books of this fine national institution are piled on window sills and on the floor in consequence of the failure of Congress to provide for it.

REORGANIZATION OF THE MEDICAL CORPS.

C. The third and most important measure is for the reorganization of the medical corps with a view to the attainment of the following objects:

1. To increase the number of medical officers sufficiently for them to be able to perform in time of peace all the duties with which they are charged by Army regulations. So far is this from being the case at present that the regular medical corps has to be supplemented by the employment of about two hundred contract surgeons.

2. To correct the injustice done the medical corps by the act for the reorganization of the Army in 1901, by which without a proper consideration for the needs of the medical department the proportion of officers in the higher grades was greatly reduced, and the prospect for promotion in that branch of the service much impaired. As a result the medical department has been unable to fill the vacancies in the grade of lieutenant created by that act, in spite of every effort to attract candidates, and there have been eleven resignations from among the younger men in the corps as compared with one in the same period of time antecedent to that act. In this bill the Surgeon General asks for a proportionate number in each grade corresponding to that given by Congress to the Medical Department of the Navy last year, which gives a rate of promotion corresponding quite closely with that enjoyed by the Medical Department of the Army prior to the Act of Feb. 2, 1901.

3. To modify the existing law as to examination for promotion so as to provide examination before promotion to all grades except the surgeon generalcy.

4. To establish a reserve medical corps into which the contract surgeons now in the service will be commissioned. These

reserve officers will have, while in active service, the rank and allowances of first lieutenants, medical corps, which will give them a more dignified and satisfactory status than that now enjoyed by contract surgeons. It is the desire of the medical department to attract into this reserve corps capable young men who have recently graduated from the best medical colleges, and to give them military experience and, so far as practicable, a course of instruction at the Army Medical School, so that when they return to civil life to establish themselves and build up a practice they will constitute an eligible list of trained medical officers available for service in time of war. These reserve officers will not be ordered to active service except *on their own application and will be eligible for* appointment to positions in the medical service of the organized militia and as United States volunteer officers with higher rank.

The bill is as follows:

A BILL TO INCREASE THE EFFICIENCY OF THE MEDICAL DEPARTMENT OF THE UNITED STATES ARMY.

(As approved by the Secretary of War, Feb. 18, 1904.)

BE IT ENACTED BY THE SENATE AND HOUSE OF REPRESENTATIVES OF THE UNITED STATES OF AMERICA IN CONGRESS ASSEMBLED, That from and after the approval of this act the Medical Department of the United States Army shall consist of one Surgeon General, with *the rank of Brigadier General*; a medical corps and a medical reserve corps, as hereinafter provided; and the hospital corps, the *nurse corps and dental surgeons as now authorized by law.*

SEC. 2. That the medical corps shall consist of 16 colonels, 24 *lieutenant colonels, 110 majors and 300 captains* or first lieutenants, who shall have rank, pay and allowances of officers of corresponding grades in the cavalry arm of the service. *Immediately following* the approval of this act all officers of the medical department then in active service, other than the Surgeon General, shall be recommissioned in the corresponding grades in the medical corps established by this act, in the order of their seniority and without loss of relative rank in the Army, as follows: Assistant surgeons general, with the rank of colonel, as colonels; deputy surgeons general, with the rank of lieutenant colonel, as lieutenant colonels; surgeons with the rank of major, as majors; assistant surgeons who had attained the rank of captain on or before Dec. 25, 1903, as captains; assistant surgeons, with the rank of first lieutenant, who at the time of the approval of this act shall have served less than *three years as such* in the *Regular Army, as first* lieutenants;

Provided, That assistant surgeons who at the time of the approval of this act shall have served three years or more in the Regular Army as such, and who had not attained the rank of captain on or before Dec. 25, 1903, shall, subject to examination, be recommissioned in the medical corps in the order of their seniority, as captains, to rank as such from the date of the approval of this act.

Provided further, That any assistant surgeon with rank of first lieutenant *who has heretofore failed to qualify for promotion* to the rank of captain and is now under suspension shall be recommissioned in the *medical corps* as first lieutenant with rank as such from date of his commission as assistant surgeon, and shall, at the end of his period of suspension, be again examined in accordance with existing law, and if found qualified shall be commissioned in the medical corps as captain with the rank to which he would have been entitled under the terms of this section had he not been under suspension; if he fails to pass such examination he shall be honorably discharged from the service with one year's pay, as provided by Section 5 of this act.

SEC. 3. That promotions in the medical corps to fill vacancies in the several grades created or caused by this act, or hereafter occurring, shall be made according to seniority, but all such promotions and all appointments to the grade of first lieutenant in said corps shall be subject to examination as hereinafter provided;

Provided, That the increase in grades of colonel, lieutenant colonel and major, provided for in this act, shall be filled by promotion each calendar year of not exceeding two lieutenant colonels to be colonels; three majors to be lieutenant *colonels*; *fourteen* captains to be majors; and of the increase in the grade of first lieutenant not more than 25 *percentum of the total* of such increase shall be appointed in any one calendar year:

Provided further, That a first lieutenant *of the* medical corps on the completion of three years' service, including service as assistant surgeon in the *Regular Army*, or as surgeon or assistant surgeon in the Volunteer Army during the war with Spain or since, or on *active duty* as first lieutenant in the medical reserve corps as hereinafter provided, shall be entitled to the pay and allowances *of a captain* of the medical corps, and when the aggregate of his service, either as first lieutenant in the medical corps or as assistant surgeon in the Regular Army, equals three years he shall be entitled, subject to examination, to promotion to the grade of captain in the medical corps.

SEC. 4. That no person shall receive an appointment as first lieutenant in the medical corps until he shall have successfully passed an examination, under regulations to be prescribed by the Secretary of War, before an army medical board consisting of not less than three officers of the medical corps, *to* be designated by the Secretary of War.

SEC. 5. That no officer of the medical *corps shall be promoted* therein until he shall have successfully passed an examination before an army medical board consisting of not less than three officers of the medical corps to be designated by the Secretary of War, such examination to be prescribed by the Secretary of War, and to be held at such time anterior to the accruing of the right to promotion as may be for the best interests of the service:

Provided, That should any officer of the medical corps fail in his physical examination and be found incapacitated for service by reason of physical disability contracted in the line of duty, he shall be retired with the rank to which his seniority entitled him *to* be promoted, but if he should be found disqualified for promotion for any other reason, a second examination shall not be allowed, but the Secretary of War shall appoint a board of review, to consist *of three medical officers* superior in rank to the officer examined, none of whom shall have served as a member of the board which examined him. *If the unfavorable finding* of the examining board is approved by the board of review the officer reported disqualified for promotion shall, if *a first lieutenant or* captain, be honorably discharged from the service with one year's pay, and, if a major or lieutenant colonel, shall be debarred from promotion, and the officer next in rank found qualified shall be promoted to the vacancy. If the action of the examining *board is disapproved by the board of* review the officer shall be considered qualified and shall be promoted.

SEC. 6. That nothing in this act shall be construed to legislate out of the service any officer now in the Medical Department *of* the Army, nor to affect the relative rank for promotion of any medical officer now in the service, or who may hereafter be appointed therein, as determined by the date of his appointment or commission.

SEC. 7. That for the purpose of securing a reserve corps of medical officers available for military service, the President of the United States is authorized to issue commissions as first lieutenants therein to such graduates of reputable schools of medicine, citizens of the United States, as shall from time to time, on examination to be prescribed by the Secretary of War, be found physically, mentally and morally qualified to hold such commissions, the person so commissioned to constitute and be known as the medical reserve *corps. The commissions so given shall confer on the* holders all the authority, rights and privileges of commissioned officers of the like *grade in the medical corps of the United States Army,* except promotion, but only when called into active duty as hereinafter provided and during the *period of such active duty. Officers* of the medical reserve corps shall have rank in said corps according to date of their commissions therein, and when employed on active duty as hereinafter provided shall rank next below all other officers of like grade in the United States Army:

Provided, That contract surgeons now in the military service, who receive the favorable recommendation of the Surgeon General of the Army, shall be eligible for appointment in said reserve corps without further examination.

SEC. 8. That in emergencies the Secretary of War may order officers of the medical reserve corps to active duty in the service of the United States in such numbers as the public interests may require and may continue such officers on such duty so long as their services are necessary:

Provided, That nothing in this act shall be construed as authorizing an officer of the medical reserve corps to be ordered on active duty as herein provided who is unwilling to accept such service, nor to prohibit an *officer of the medical reserve corps not designated* for active duty from service with the militia, or with the volunteer *troops of* the United States, or in the *service of* the United States in any other capacity; but when so serving with the militia or with volunteer troops, or when employed in the service of the United States in any other capacity, an officer of the medical reserve corps shall not be subject to call for duty under the terms of this section:

Provided further, That the President is authorized to honorably discharge from the medical reserve corps any officer thereof whose services are not longer required:

Provided further, That officers of the medical reserve corps who apply for appointment in the medical corps of the Army may, on the recommendation of the Surgeon General, be placed on active duty by the Secretary of War and ordered to the Army Medical School for instruction and *further examination to determine their fitness* for commission in the medical corps.

SEC. 9. *That officers of the medical* reserve corps when called on active duty in the service of the United States as provided in *Section 8 of* this act shall be subject to the laws, regulations and orders for the government of the Regular Army, and during the period of such service shall be entitled to the pay and allowances of first lieutenants of the medical corps with increase *for* length of service now allowed by law, said increase to be computed only for time of active duty:

Provided, That no officer of the medical reserve corps shall be entitled to retirement or retirement pay; nor shall he be entitled to pension except for physical disability incurred while in active duty and in line of duty.

SEC. 10. All acts and parts of acts in conflict with the provisions of this act are hereby repealed.

This bill, as is now the case with all Army legislation, was considered by the general staff, a body in which the medical corps alone of all the great staff departments, has no representation. It was, however, approved in all respects by that body, except that the general staff recommended a reduction in the number in the grades of colonel and lieutenant colonel. In these two grades they were far less liberal to the medical corps than to the engineer corps, for the increase in which they considered a bill at the same time.

Secretary Root *was not* convinced of the wisdom and justice of this reduction, and one of his last official acts was to refer back the bill to the general staff for reconsideration of this point, with *the following endorsement:*

WAR DEPARTMENT, WASHINGTON, Jan. 30, 1904.

I heartily approve this bill in principle. I consider that it will be *greatly to* the benefit of the service to abandon the employment of contract surgeons and substitute in their place regular commissioned officers. I do not think the number to which it is proposed to increase the medical corps is at all excessive. It seems to me that the presentation of the case by the Surgeon General in regard to the necessities of skilled administration of the medical service in time of war is conclusive. It will be easy in time of war to secure an adequate number of physicians competent to treat the sick and wounded, but it will be impossible to secure medical men competent to conduct the administration of the great and complicated medical service unless they are specially trained in time of peace. The lack of sufficient number of such trained officers in the past has caused untold suffering and the sacrifice of many thousands of valuable lives. It is our present duty to see to it that such a condition shall never exist again. I believe that that can be accomplished only by following the course which has now been indicated by the Surgeon General, and approved by the general staff.

On the single question of the relative proportion of majors, lieutenant colonels and colonels which should properly be accorded to the medical corps the Surgeon General wishes to ask reconsideration by the general staff. That single question, with the assent of the chief of staff, will accordingly be relegated to the general staff for further consideration. On all other questions I approve the bill in detail. (Signed) ELIHU ROOT, Secretary of War.

A compromise between the view of the general staff and that of the Surgeon General has been approved by Secretary Taft, which allows the full number asked for by the medical department in these grades, but by reducing the number of colonels and increasing the number of lieutenant colonels makes a proportion corresponding to the other staff corps in the Army rather than to the Medical Department of the Navy. This is acceptable to the Surgeon General. This bill, if adopted unchanged by Congress, will immensely increase the efficiency of the medical corps, and by means of the reserve corps its methodical expansion for war. It also, by substituting for the anomalous and little respected status of the contract surgeon medical officers of positive military rank, secures to the representatives of our profession in the Army a dignified and satisfactory position in the military body.

It is hoped that every reader of THE JOURNAL will interest himself in these important measures to the extent of indicating to his representatives in Congress his approval of them.

SECRETARY TAFT'S APPROVAL.

The following letter from the new Secretary of War bears on the above:

WASHINGTON, Feb 18, 1904.

To the Chairman, Committee on Military Affairs, House of Representatives:—I have the honor to transmit herewith a bill to increase the efficiency of the Medical Department of the U. S. Army, together with the approval by my predecessor, Secretary Root, of the bill in every part except as to the relative proportions of majors, lieutenant colonels and colonels which should properly be accorded to the medical corps.

The question was remitted to the general staff for further consideration, and has been returned with the recommendation that the number of colonels be limited to 12, the lieutenant colonels to 18, with 110 majors and 300 captains and first lieutenants; whereas the recommendation of the Surgeon General is that the colonels number 20, the lieutenant colonels 20, majors 110 and captains and lieutenants 300. It appears that the division of the general staff to which the bill was referred approved the proportion of colonels and lieutenant colonels as recommended by the Surgeon General, but that the War Department general staff as a body, when the exact point was submitted to them, made the recommendation as above. General Chaffee was not present, I am informed, at the meeting of the general staff, and possibly did not have the advantage of all the statements which were made with reference to the proper number of medical officers for each tactical unit in the field. Certainly the evidence introduced by the Surgeon General shows that the number necessary for each tactical unit is considerably greater than that which must have been assumed by General Chaffee in the conclusion which he reached. Of course, I must differ from the opinion of the general staff and the distinguished chief of that body with great diffidence in view of the short time that I have been in the department. I have, however, read the arguments carefully of the Surgeon General and the statement of the third division of the general staff, and also of the chief of staff, and I am bound to say that it seems to me that the arguments of the Surgeon General substantially outweigh those advanced by the chief of staff. The Surgeon General's report shows a complete workable system which the amendment by the general staff truncates and destroys the symmetry of. Then, too, the prospect of promotion which the increased number in the higher grades offers to those who enter the service seems to be absolutely essential to procuring good material for the medical corps. The increased expense in securing a proper medical education in modern days, as shown by lengthening of the term of preparation from two years to four years, and the great professional rewards in civil life make it highly important that there be offered a due prospect of promotion to young men of ability to induce them to enter the corps.

In deference to the opinion of the general staff, however, I have concluded to recommend a reduction in the number of colonels and an increase in the number of lieutenant colonels, so that the bill should provide for 16 colonels and 24 lieutenant colonels, and this I do after a conference with the Surgeon General, who is willing to accept the amendment.

I do not approve that amendment to the law which limits the examination of a lieutenant colonel, necessary to his promotion to a colonelcy, to an examination of his physical condition, his moral character and his past record in the service, and it seems to me that the examinations ought to be continued to the highest rank, except that of the Surgeon General, which grade is filled, of course, only by selection. Such a requirement will have the effect of preventing the upper grades from being regarded as places of leisure and as not entailing the hard, enthusiastic work which is found in the lower ranks.

I have the honor to recommend the passage of the bill amended as suggested. I believe it to be of the utmost importance in securing a proper and efficient medical corps.

I accompany this letter with the bill and with the communications received by me from the Surgeon General, the third division of the general staff and the chief of staff.

(Signed) WM. H. TAFT, Secretary of War.

State Boards of Registration.

COMING EXAMINATIONS.

Regent of the State Board of Medical Examiners of New Hampshire, State House, Concord, March 1-2. Regent, Channing Folsom, M.D., Concord.

Board of Registration in Medicine for Massachusetts, State House, Boston, March 8-9. Secretary, Edwin B. Harvey, M.D., State House, Boston.

Committees of Examination of Connecticut, New Haven, Hartford and Waterbury, March 8. Secretary, Prof. C. A. Lindsly, New Haven.

Maine Board of Registration of Medicine, Portland, March 23. Secretary, A. K. P. Meserve, M.D., Portland.

Regular Board of Medical Examiners for Georgia, Atlanta, March 30. Secretary, I. H. Goss, M.D., Athens.

Correction in Iowa Report.—Dr. J. F. Kennedy, Des Moines, secretary of the Iowa State Board of Medical Examiners, writes that he accredited one candidate who failed in the October examination to Omaha Medical College who was a graduate of Creighton Medical College. The report of this examination was given in THE JOURNAL, Jan. 23, 1904, p. 258.

Association News.

Laryngology Guest at Atlantic City.

Dr. A. Logan Turner, F.R.C.S. Edinburgh, surgeon for diseases of the ear and throat, Deaconess Hospital, Edinburgh, is to be the guest of honor of the Section on Laryngology and Otology of the American Medical Association, and will read a paper at Atlantic City. Dr. Turner's writings are on a variety of laryngologic and rhinologic topics. His work on the accessory sinuses of the nose is regarded as a classic work of reference on that subject, and his article on "The Demonstration of Artificial Edema of the Larynx" is of the same high standard. The Section is fortunate in having secured the attendance of Dr. Turner.

The Public Service.

Army Changes.

Memorandum of changes of station and duties of medical officers, U. S. Army, for the week ending Feb. 20, 1904:

Dean, Elmer A., asst.-surgeon, granted ten days' leave of absence.

Purviance, Wm. E., asst.-surgeon, returned to duty at Chicago from leave. Feb. 16, 1904, reports in temporary charge of C. S. O., Department of the Lakes, Chicago, on account of sickness of Col. Philip F. Harvey, chief surgeon.

Clayton, George R., contract surgeon, relieved from duty in the Philippine Division and assigned to duty at Columbus Barracks, Ohio, where he reported February 17.

Voohies, Hugh G., contract dental surgeon, relieved from further duty at San Juan, P. R., and assigned to station at Fort Hancock, N. J. (now on temporary duty at Plattsburg Barracks, N. Y.).

Navy Changes.

Changes in the medical corps, U. S. Navy, for week ending Feb. 20, 1904:

McClanahan, R. K., asst.-surgeon, ordered to the Naval Hospital, New York, N. Y., for treatment.

Neilson, J. L., asst.-surgeon, detached from the naval station, Cavite, P. I., and ordered to the naval station, Guam, L. I.

Williams, R. B., P. A. surgeon, commissioned P. A. surgeon with rank of lieutenant, from Nov. 17, 1903.

Butler, C. St. J., asst.-surgeon, ordered to the *Constellation*, with additional duty at the naval training station, Newport, R. I.

Marine-Hospital Service.

Official list of the changes of station and duties of commissioned and non-commissioned officers of the Public Health and Marine-Hospital Service for the seven days ended Feb. 18, 1904:

Stoner, J. B., surgeon, to proceed to Cape Charles Quarantine Station and assume temporary charge.

Korn, W. A., asst.-surgeon, granted eighteen days' leave of absence from February 19.

Warren, B. S., asst.-surgeon, bureau letter granting leave of absence for seven days from February 12, amended to read seven days from February 15.

Hanrath, F. R., pharmacist, on being relieved by Pharmacist E. Rogers, to proceed to St. Louis and report to medical officer in command for duty and assignment to quarters, relieving Pharmacist M. Walerius.

Woods, C. H., pharmacist, relieved from duty at Chicago and directed to proceed to Cincinnati and report to medical officer in command for duty and assignment to quarters, relieving Pharmacist E. Rogers.

Walerius, M., pharmacist, on being relieved by Pharmacist F. R. Hanrath, to proceed to Chicago and report to medical officer in command for duty and assignment to quarters.

Rogers, E., pharmacist, on being relieved by Pharmacist C. H. Woods, to proceed to Cleveland, Ohio, and report to medical officer in command for duty and assignment to quarters, relieving Pharmacist F. R. Hanrath.

Herty, F. J., pharmacist, on being relieved by Pharmacist B. E. Holsendorf, to proceed to Boston and report to medical officer in command for duty and assignment to quarters, relieving Pharmacist L. C. Spangler.

Slough, C., pharmacist, relieved from duty at San Francisco Quarantine and directed to proceed to San Francisco and report to medical officer in command for duty and assignment to quarters, relieving Pharmacist M. R. Mason.

Holsendorf, B. E., pharmacist, relieved from duty at Havana, Cuba, and directed to proceed to San Juan, P. R., and report to medical officer in command for duty and assignment to quarters, relieving Pharmacist F. J. Herty.

Mason, M. R., pharmacist, on being relieved by Pharmacist C. Slough, to proceed to San Francisco Quarantine and report to medical officer in command for duty and assignment to quarters.

Southard, F. A., pharmacist, granted leave of absence for one day on account of sickness.

Spangler, L. C., pharmacist, on being relieved by Pharmacist F. J. Herty, to proceed to Tampa Bay Quarantine and report to medical officer in command for duty and assignment to quarters.

Stier, C., pharmacist, relieved from duty at Tampa Bay Quarantine and assigned to duty at Key West, Fla.

Bierman, C. H., pharmacist, granted leave of absence for twelve days from February 8.

BOARD CONVENED.

Board to meet at Washington, D. C., April 4, 1904, for the examination of candidates for appointment as assistant surgeon. Detail for the board: Surgeon D. A. Carmichael, chairman; Surgeon G. M. Guiteras; P. A. Surgeon J. F. Anderson, recorder.

Health Reports.

The following cases of smallpox, cholera and plague have been reported to the Surgeon General, Public Health and Marine-Hospital service, during the week ended Feb. 19, 1904:

SMALLPOX—UNITED STATES.

California: San Francisco, Jan. 31-Feb. 7, 4 cases.
District of Columbia: Washington, Feb. 6-13, 5 cases.
Florida: Jacksonville, Feb. 6-13, 2 cases.
Illinois: Cairo, Jan. 1-21, 13 cases; Danville, Feb. 6-13, 1 case.
Louisiana: New Orleans, Feb. 6-13, 4 cases, 1 case imported.
Michigan: Detroit, Dec. 6-13, 4 cases; at 82 places, Jan. 30-Feb. 6, present.
Missouri: St. Louis, Jan. 30-Feb. 6, 20 cases.
New Hampshire: Manchester, Feb. 6-13, 8 cases.
New Jersey, Feb. 6-13, Camden, 1 case; Trenton, 3 cases.
New York: Elmira, Feb. 6-13, 1 case imported from Cohockton.
Ohio: Cincinnati, Feb. 5-12, 9 cases; Feb. 6-13, Dayton, 18 cases; Warren, 1 case.
Pennsylvania: Feb. 6-13, Allentown, 5 cases; Butler, 1 case; Johnstown, 1 case, 1 death; Philadelphia, 58 cases, 16 deaths; Pittsburg, 10 cases, 2 deaths.
South Carolina: Charleston, Jan. 30-Feb. 13, 16 cases, 1 death.
Tennessee: Feb. 6-13, Memphis, 42 cases; Nashville, 8 cases.
Washington: Tacoma, Feb. 1-8, 1 case.
Wisconsin: Milwaukee, Feb. 6-13, 6 cases.

SMALLPOX—FOREIGN.

Austria: Prague, Jan. 16-23, 7 cases.
Belgium: Antwerp, Jan. 10-17, 3 cases, 1 death.
Brazil: Pernambuco, Dec. 16-31, 28 deaths; Rio de Janeiro, Jan. 10-17, 39 cases, 28 deaths.
Canada: Vancouver, Jan. 1-31, 7 cases.
China: Hongkong, Dec. 26-Jan. 2, 1 case.
France: Paris, Jan. 22-30, 34 cases, 3 deaths.
Great Britain: Jan. 22-30, Edinburgh, 9 cases; Leeds, 1 case; Glasgow, Jan. 29-Feb. 5, 46 cases; Jan. 16-23, Leith, 1 case; South Shields, 2 cases; Jan. 23-30, Manchester, 1 case, 1 death; Sunderland, 1 case; Nottingham, Jan. 16-30, 23 cases.
India: Bombay, Jan. 12-19, 1 death; Karachi, Jan. 10-17, 3 cases.
Italy: Palermo, Jan. 9-16, 1 case.
Malta: Jan. 9-16, 2 cases.
Mexico: City of Mexico, Jan. 10-31, 9 cases, 3 deaths.
Netherlands, Amsterdam, Jan. 16-30, 9 cases, 1 death.
Russia: Moscow, Jan. 9-16, 4 cases, 1 death; St. Petersburg, Jan. 16-23, 4 cases, 4 deaths; Warsaw, Jan. 8-16, 10 deaths.
Siberia: Vladivostock, Jan. 11, epidemic.
Spain: Barcelona, Jan. 31, 16 deaths; Madrid, Jan. 20, epidemic; Santander, Jan. 25-Feb. 1, 8 cases, 1 death.
Turkey: Constantinople, Jan. 17-31, 9 deaths.

CHOLERA—FOREIGN.

Turkey in Asia: Syria and Mesopotamia, Jan. 11, 11 cases, 4 deaths.

PLAGUE—UNITED STATES.

California: San Francisco, Feb. 7, 1 case.

PLAGUE—FOREIGN.

Brazil: Pernambuco, Dec. 16-31, 3 deaths.
Egypt: Alexandria, Jan. 21, 1 case.
India: Bombay, Jan. 12-19, 189 deaths; Karachi, Jan. 10-17, 8 cases, 9 deaths; Madras, Jan. 9-15, 1 death.
Russia: Cronstadt, Jan. 20, 1 death, laboratory infection.
South Africa: Cape Colony, Jan. 2-9, 1 case, 1 death.

Medical Organization.

Kansas.

Clay County Medical Society.—On February 11, the physicians of the county met at Clay Center, and organized a county society on the standard plan, with the following officers: President, Dr. Samuel E. Reynolds, Clay Center; vice-president, Dr. Benjamin F. Morgan, Clay Center, and secretary and treasurer, Dr. Andrew Pearson, Wakefield.

Mississippi.

Lincoln County Medical Society.—Dr. Oliver B. Quin, McComb, councilor for the Ninth District, met the physicians of the county at Brookhaven, February 9, and organized a society on the standard plan, with the following officers: Dr. James W. Bennett, president; Dr. John T. Butler, vice-president, and Dr. Solon G. Wilson, secretary and treasurer, all of Brookhaven.

Montana.

Missoula County Medical Society.—This society was organized at Missoula, December 26, on the standard plan, with 10 charter members and the following officers: President, Dr. George T. McCullough; vice-president, Dr. Joseph A. Tremblay; secretary-treasurer, Dr. Russell Gwinn; delegate, Dr. W. Buchanan Parsons, and censors, Drs. John J. Buckley, Charles Pixley, and John T. Brown, all of Missoula.

New Jersey.

Salem County Medical Society.—At the quarterly meeting held at Woodbridge, February 3, the society adopted the standard plan of reorganization.

Society Proceedings.

PHYSICIANS' CLUB OF CHICAGO.

Monthly Meeting, held Feb. 16, 1904.

Mr. Clarence Darrow, a noted lawyer, defined graft as "the effort of any human being to take from society or from another human being or animal more than he really gives to society in return." Great grafts are done inside the law. The wise grafter never undertakes to get something contrary to the law. He undertakes to fix the law so that he can get something according to the law. It is more profitable and safer. The cheap grafter, who does not understand his business, and does things by retail instead of wholesale, who has little voice in making or administering laws, undertakes to graft contrary to the law. Great capitalists graft inside the law. It is easier for them to choose their agents and their tools to fix the law the way they want it, and they get what they want without running the slightest possible risk. The grafter is a product of his environment. There is considerable grafting in the legal profession. Indirectly, that is what the legal profession is for, said Mr. Darrow. It is a business chosen by certain men because they think by pursuing it they can get more than they can by pursuing any other business they are familiar with. He said it speaks well for the medical profession that there are few physicians in Congress or in legislatures.

Dr. Harold N. Moyer discussed medical graft. He said he had made inquiries from a large number of members of the profession, and has been unable to find anybody who knew anybody who grafted, or knew anything about graft in the medical profession. He has found one or two men who said they knew of somebody else in the profession grafting, but on running the inquiry down, he found it was false, and he received the word of the man himself to authenticate it.

Dr. J. Clarence Webster asked about the Chicago surgeons in high places who contrive with country practitioners to send them patients. Such men existed, and one could put his fingers on them. It is not necessity that stimulates these men to carry out this nefarious practice, which is not only detrimental to their self-respect, but a temptation to weak brothers with whom they come in contact. Within the last month he saw a circular signed by a surgeon who is connected with one of the well-known hospitals of Chicago. This circular was sent around to various physicians in Illinois and neighboring states, offering bribes for patients sent to him. He knows of the same thing having been done by a professor in one of the best medical schools in a neighboring state. These men are not starving. They do not require to do that business, but they do it. What is the explanation? Not necessity, but deviltry—degeneration, and as long as men in high places do this, he said it is absolute folly to expect the struggling practitioners, who are in the position of being bribed, not to be bribed.

Dr. Palmer Findley said the burden of medical graft falls on the young physician and surgeon. He does not think any surgeon has to graft for bread and butter. Going out into a neighboring town two or three months ago to operate on a poor farmer's wife for a small fee, a physician, after the operation, showed him a card from an agent of a surgeon in Chicago, offering 50 per cent. commissions. This practitioner also showed him a letter from a local surgeon, who solicited cases for 25 per cent. commission. Another case was mentioned of a physician in the same town who had gone personally to the attending physician in a case in behalf of a Chicago surgeon, and he had openly declared time and again that he was receiving a division of fees. The remedy should be the one President Roosevelt suggested for trusts—publicity—publicity through organizations, so that it will be impossible for men who are professors in leading medical schools and officers in medical societies to give commissions.

Mr. Wm. H. McSurely defined a grafter as one who allies or attaches himself to some outside interest, some interest apart from the main motive of his life, for the purpose of getting from that outside interest something that will be beneficial to the main motive of his life. He then spoke of lawyers and physicians as church grafters; the society grafters, etc.

Dr. G. Frank Lydston spoke of the physician in politics and public affairs, saying that the physician who devotes a portion of the years of his life to politics and to the public service is forever damned in the eyes of both the public and the medical profession. The reverse is true of the lawyer. In politics the lawyer attracts attention to himself. He said there were very few lawyers who rendered services in the interest of the public without salary, although this was frequently done by physicians.

NORTH BRANCH OF THE PHILADELPHIA COUNTY MEDICAL SOCIETY.

Regular Meeting, Jan. 13, 1904.

Dr. Samuel Wolfe in the Chair.

Physicians' Relations.

The address of the retiring chairman was read by Dr. H. Brooker Mills, who, after remarking on the value of the organization of branches of the county society, urged that many unnecessary complications could be avoided by properly "training" the patient. He condemned commissions and urged that the medical man take sufficient rest to enable him to perform services of the highest character.

DISCUSSION.

Dr. A. M. Eaton urged the importance of thorough organization of the medical profession, believed that more attention should be given to the business side, and also felt that through organization much of the imposition which is practiced by the undeserving on the hospital clinics could be avoided.

The Diagnosis and Treatment of Internal Hemorrhoids.

Dr. Herman A. Brav divided hemorrhoids into (1) capillary hemorrhoids; (2) arterial hemorrhoids, and (3) hemorrhoidal tumors, which may also be termed respectively the first, second and third stages. In view of the fact that these conditions are also accompanied by hemorrhage, pain, protrusion and discharge of mucus, internal hemorrhoids are frequently confounded with cancer of the rectum, polypus of the rectum and prolapse of the rectum. The conflict is particularly apt to occur in children, in whom polypus and prolapse are not uncommon, while internal hemorrhoids are rare. Polypus and prolapse can be distinguished from hemorrhoids by a careful digital examination, which will reveal the presence of a pedicle to which the growth is attached, and malignant disease can be distinguished by the hard growths on the rectal wall.

He reported the case of a woman, aged 70, which had been diagnosed as internal piles, the patient having suffered from rectal hemorrhages and a constant desire to evacuate the bowels. Digital examination in the lateral and semiprone position revealed nothing, but digital examination in the erect position with the patient straining down showed a malignant stricture about four inches above the anus.

The first stage of the hemorrhoidal development is the most difficult of diagnosis, and *in many cases* aid will be secured in this direction by making the examination immediately after the bowels have been emptied by means of an enema and by having the patient strain down.

Treatment should be considered with reference to the cause, which may be either constipation, retroversion of the uterus, foreign body in the rectum, pregnancy, or straining during micturition, as from stricture or enlarged prostate. Palliative treatment is not effective in the third stage, but is successful in the first and second. The cause should always be ascertained and removed, if possible. Constipation should be avoided, the diet regulated and alcohol and tobacco used only in moderation, if permitted at all. Mild aperients, massage of the sphincter, and the injection of two ounces of olive oil at bedtime, are beneficial in regulating the bowels. Hemorrhage is most efficiently relieved by the application of cold astringents. After each defecation cold water should be injected and the addition of 10 grains of tannic acid is very efficient.

As a means of palliative treatment he injects into the pile five to ten drops of a solution composed of one part of pure carbolic acid, two parts of glycerin and two parts of water. He frequently injects two or three tumors at a time, but did not recommend that more than one be injected by the novice, and the sittings should be a week apart. Following this treatment, the tumor gradually lessens in size, and in a few weeks the pain and discomfort will disappear. In the cases of strangulated piles, immediate operation should be performed, but if the patient will not permit this, applications of lead water and laudanum lotions afford great relief and reduce the edematous swelling, so that the piles may be replaced. He described fully the operation he performs. After tying the piles with a ligature, he does not cut them off, but inserts a rubber tube in the rectum and keeps the bowel confined for about four days, after which action is secured by means of purgatives or enema, if necessary. Next to the ligature operation, he believes the clamp and cautery operation as performed by Henry Smith to be the best. The patient should be kept under observation for at least three weeks after the operation, being allowed about the room after the first week or ten days, but should be *in a recumbent position* the most of the time for the balance of the period.

DISCUSSION.

Dr. Collier Ford Martin commented on a method that is of value in some cases, i. e., stretching the sphincter. He was not inclined to view treatment by injection as a palliative measure, but believed that practically all cases adapted to its use should be cured. In fibroid piles, however, the radical operation is very much better. He did not believe that the sloughing following injection was a consequence of this method, but was due to the lack of proper aseptic precautions, or to the use of too *strong a solution or of too much fluid.* It is well in all cases in which there is the least tightness or irritability of the sphincter to divulge the same under nitrous oxid prior to the injection. The injections should be made through a tubular speculum, one at a time, and the sittings should be a week apart. He prefers the weaker solution, and is at present using the French phenol-sodique. The piles usually disappear in about two or three weeks after the operation. He had had no experience with the ligature method.

Dr. Frank C. Hammond stated that he had seen eight cases operated on with the electrothermic cautery, used by

Dr. Andrew J. Downes, and absolutely no pain was complained of.

Dr. Brav did not believe a speculum was necessary to diagnose internal hemorrhoids; he recommended digital examination with the trained finger.

The discussion then left the subject and turned on the presence of pins and needles in all parts of the body, many cases being reported.

Therapeutics.

[Our readers are invited to send favorite prescriptions or outlines of treatment, such as have been tried and found useful, for publication in these columns. The writer's name must be attached, but it will be published or omitted as he may prefer. It is the aim of this department to aid the general practitioner by giving practical prescriptions and, in brief, methods of treatment for the diseases seen especially in every-day practice. Proper inquiries concerning general formulae and outlines of treatment are answered in these columns without allusion to inquirer.]

Colonic Lavage.

The following technic of colonic lavage is recommended by M. H. Mack in *Med. Standard:*

The patient must be placed on his back with the limbs well elevated. The colon tube is passed into the bowel only a few inches; it is not necessary to carry it beyond the sigmoid as the water easily enters the colon with the tube just inside the sphincter. The temperature of the water may vary from that of ice water to 130 F., though it is preferably used at a temperature of 110 to 120 F., in most cases. Hot and cold water may be alternated, if desired, or the hot followed by cold when a stimulating effect is desired. After placing the tube into the bowel, the nozzle of the irrigator is attached, and from eight to twelve ounces of water allowed to pass in, rarely more without giving the patient pain.

The nozzle is then disconnected and the water siphoned out. This may be repeated several times. The patient should be allowed to judge as to the amount of water to let in at one time.

He employs this method of treatment with good success in constipation due to various causes and especially in that due to catarrhal conditions of the bowel, in diarrhea, dysentery, typhoid fever, hepatic atrophy, kidney diseases and other varieties.

Eczema of the Scalp, Eyebrows and Beard.

The following combinations are recommended by *Jour. des Pract.* in the treatment of eczema involving the scalp, eyebrows and beard:

℞.	Olei cadini	ʒv	20	
	Olei amygdalæ dulcis	℥iiss	75	

M. Ft. ung. Sig.: Apply locally; or:

℞.	Zinci oxidi	ʒiss	6	
	Hydrarg. chloridi mitis	gr. xlv	3	
	Adipis	℥i	30	

M. Ft. ung. Sig.: Apply locally.

And for the involvement of the beard the following:

℞.	Zinci sulph.	gr. c	6	65
	Cupri sulph.	gr. xxx	2	
	Croci (saffron)	gr. v		30
	Aq. camphoræ	℥vii	210	

M. Sig.: Dilute with two parts of water and apply locally.

Diseases of Lid Margins.

Wolffberg, in an abstract in *Oph. Record,* recommends the use of benzine and hydrogen peroxid in the removal of scales and crusts from the margin of the eyelids in blepharitis marginalis. Benzine can be used in full strength and is applied by means of a piece of cotton to the slightly everted lid margin. The crusts are easily removed, the ulcers exposed, which renders the application of the yellow salve more productive. The application of benzine may be used once daily. Hydrogen peroxid is also of service, and may be dropped directly on the infected lid margin. He also uses it in the treatment of catarrh of the conjunctiva in combination with cocain.

Malaria.

In the treatment of malaria, Dr. S. Harris, in *Ther. Gaz.,* states that he commences giving quinin in three to five grain (.20-.30) doses every three or four hours just as soon as a diagnosis is made and continues it until the fever subsides, instead of following the usual custom of beginning its administration at the close of the paroxysm. If the patient is seen during the chill or while the fever is at its height and nervous symptoms are present, such as headache, backache, and pain in the limbs, a hypodermic of morphin gr. 1/8 to gr. 1/4 (.0075-.015) combined with atropin gr. 1/150 (.0004) is given along with the quinin. If constipation is present a large initial dose of calomel is given, combined with soda, hyoscyamus and podophyllin, also paying careful attention to elimination by the kidneys, and to combat the intestinal toxemia he combines with the quinin, salol in three or four grain (.02-.015) doses. Saloquinin, which is the salicylic ester of quinin, is sometimes substituted, given in fifteen to twenty grain (1.-1.20) doses every four hours, but it does not, in the author's opinion, possess any advantage over the foregoing combination of salol and quinin. Later in the disease, to combat the severe headache and backache, he recommends the following combination:

℞.	Codeinæ sulph.	gr. ¼-½		015-.030
	Phenacetini	gr. iii-iv		20-.25

M. Ft. cap. No. i. Sig.: One such capsule as necessary to relieve the subjective symptoms.

The following combination is recommended by the author in both the intermittent and remittent forms of malaria:

℞.	Quin. sulph.			
	Salol, āā	gr. xl-ʒi	2.65-4	
	Codeinæ sulph.	gr. iii		20
	Phenacetini	gr. xxx-xl	2-2	65

M. Ft. capsulæ No. xii. Sig.: One capsule every three or four hours.

To insure the solution of the capsule 10 drops (.6) of dilute hydrochloric acid is given after each dose. Or the quinin may be given in solution as follows:

℞.	Quin. sulph.	gr. l-lxxx	3.30-5	30
	Acidi hydrochlor. dil.	ʒiss-iiss	6.-10	
	Tinct. zingiberis	ʒiiss-iv	10.-15	
	Tinct. opii camph.	ʒii-iv	8.-15	
	Syr. limonis	℥ii	60	
	Aquæ q. s. ad	℥viii	240	

M. Sig.: One tablespoonful every four hours in water, taken through a straw.

In those cases where the untoward effects of quinin are sufficient to prevent its use in large enough doses to obtain its full antimalarial effects the following combination is employed:

℞.	Methylene blue	gr. i		06
	Quininæ sulph.	gr. ii		12

M. Ft. cap. No. i. Sig.: One such capsule every four hours.

For the treatment of the anemia following both the intermittent and remittent forms of malaria, the so-called "malarial cachexia," the following combination is recommended:

℞.	Quin. sulph.	ʒiss	6	
	Ferri reducti	ʒi	4	
	Ext. nucis vom.	gr. viii		50
	Acidi arsenosi	gr. i		06
	Ext. colocynth. co.	gr. x-xv		65-1.
	Podophyllini	gr. i-iii		06-.20
	Mellis q. s.			

M. Ft. cap. No. lx. Sig.: One pill after each meal.

As an initial purgative in the treatment of malaria, W. Krauss recommends the following:

℞.	Hydrarg. chloridi mitis	gr. v		30
	Podophyllini	gr. 1/3		02
	Ext. nucis vom.	gr. i		06
	Aloini purif.	gr. 1/3		02
	Pulv. arom.	gr. viii		50

M. Ft. cap. No. iv. Sig.: One every two hours.

If it is necessary for this to be followed by a saline, thiosulphate of sodium is given in doses of two and a half drams (10.) dissolved in a glass of water. As a substitute for quinin in cases of malaria this author recommends euquinin in somewhat larger doses. In his experience it has acted quite favorably, is easily borne by delicate stomachs, and is a good remedy for children.

As a mixture to be used intravenously the following combination is recommended:

℞.	Quin. bimuriatis	gr. vii		50
	Antipyrini	gr. iii		20
	Aquæ	gtt. xx	1	30

M. Sig.: To be injected intravenously.

The antipyrin aids in the solution of the quinin. This solution should not be used in cyanosed cases where antipyrin is non-indicated.

In the latent or masked forms of malaria the following combination is recommended by the author:

℞.	Quin. hydrobrom.	gr. xxx	2	
	Hydrarg. chloridi mitis	gr. v		30
	Pulv. capsici	gr. iss		09
	Pulv. doveri	gr. v		30
	Aloini purif.	gr. 1/6		01

M. Ft. cap. No. vi. Sig.: One every four hours.

J. B. McElroy recommends the dihydrochlorate of quinin as having advantage over the other salts in having a larger percentage of the alkaloid, in being less bulky, more soluble, less liable to irritate the stomach and can be given hypodermically.

By hypodermoclysis fifteen or twenty grains (1.-1.30) of the bimuriate of quinin and urea are dissolved in a pint of normal salt solution, sterilized, and the entire amount given as a saline infusion.

As a tonic and reconstructive in malaria the following is recommended by H. A. West:

℞.	Acidi arsenosi			
	Strych. sulph., āā	gr. i		06
	Chinchonidinæ	ʒiiss	10	
	Ferri sulph. ex sic.	ʒss	2	

M. Ft. pil. No. xxx. Sig.: One to be taken three times a day after meals.

Euquinin, which is quinin carbonic ether, is recommended by *Merck's Archives*, combined as follows, in the treatment of malaria during convalescence:

℞.	Euquinin	gr. c	6	65
	Ferri sulph. ex sic.	gr. xx	1	30
	Acidi arsenosi	gr. i		06
	Pulv. capsici	gr. x		65

M. Ft. cap. No. xl. Sig.: Two capsules three times a day; or:

℞.	Methylene blue			
	Euquinin			
	Pulv. myristicæ, āā	gr. xl	2	65

M. Ft. cap. No. xx. Sig.: One or two, four times daily for two days, then one three times daily.

[The nutmeg seems to prevent the nausea caused by the methylene blue.]

To prevent the subjective symptoms, such as ringing in the ears, the following combination is recommended:

℞.	Quin. hydrochlor.	ʒii	8
	Acidi hydrochlor. dil.	ʒiii	12
	Acidi hydrobrom. dil.	℥i	30
	Syr. limonis	ʒv	20
	Aquæ q. s.	℥iii	90

M. Sig.: One teaspoonful three times a day between the paroxysms.

Erysipelas—Poison Ivy.

A subscriber sends to this department the following formula, a very efficacious one, as shown by his long experience with it, in the treatment of erysipelas:

℞.	Tinct. ferri chloridi	℥vi	180
	Quin. sulph. (to saturation).		

Sig.: Ten drops to be taken every four hours and the same mixture painted over the affected area thrice daily.

He has also derived most favorable results from the following in the treatment of poison from rhus toxicodendron.

℞.	Ext. serpentariæ flu.	℥iii	90

Sig: To be painted over the affected areas three times a day.

Medicolegal.

Eighty Thousand Dollars for Personal Injuries.—In the case of the International and Great Northern Company vs. Moynahan, mentioned Feb. 6, 1904, page 394, Moynahan received $20,000, and not $80,000. The Journal's attention has been called to the fact that an error was made in the original report of the court proceedings.

North Carolina—To Promote Medical Science.—Chapter 666 of the Public Laws of North Carolina of 1903 provides that the professors of anatomy of the several medical schools of the state shall be a board for the distribution of the unclaimed bodies of persons who at the time of death were prisoners under sentence for crime. But the body of a confederate soldier or of the wife of a confederate soldier is to be excepted from the provisions of this act, and the body of no white person shall be delivered to any school for the colored race. The bodies obtained hereunder shall be embalmed before use for dissection.

Current Medical Literature.

AMERICAN.

Titles marked with an asterisk (*) are abstracted below. Titles of articles will be listed but once, though the articles appear later in other journals.

New York Medical Journal.

February 13.

1 *Conservative Treatment of Some Surgical Diseases of the Renal Pelvis and the Ureter by the Uretercystoscope. F. Kreissl.
2 *Personal Experiences with the Administration of Nitrous Oxid and Oxygen for Prolonged Anesthesia. Prescott Le Breton.
3 *Original Research Regarding Human Perspiration, etc. Julius H. Hoelscher.
4 *Artificial Fluorescence of Living Tissue in Relation to Disease. (To be concluded.) William J. Morton.
5 *Fluorescin in Transillumination of the Stomach. Robert C. Kemp.
6 *Trunecek's Serum. Swithin Chandler.
7 *Brief Review of the Etiology of Yellow Fever. (Concluded.) James Carroll.

1. **Uretercystoscope.**—This instrument is considered by Kreissl from his experience as having had its utility greatly exaggerated; it is useful, but its sphere is limited. It is itself to some extent an irritant in pathologic conditions, and its limitations are marked in cases with reduced bladder capacity, stenosis of the ureteral orifice, distorsions, twists or kinks of the ureter, and blocking of the catheter by pus and blood clots. He, however, finds it possibly useful to some extent in hydronephrosis, pyelitis, pyonephrosis, ureteritis, pyelonephritis, renal retention and colic obstructions of the ureteral lumen by calculi,, blood clots or pus, strictures or displacements and encroachment on the ureter from external pathologic conditions outside. In only a few of these cases can permanent results be obtained by this method, though temporary relief may be more common. He reviews the various methods, and speaks well of the use of the retention catheter in the ureter in some of these cases, such as pyelitis and renal retention. He thinks fistula following various operations on the ureter and renal pelvis will be rarely observed if the catheter is left in the renal pelvis and the ureter for the first three days after operation.

2. **Anesthesia.**—Le Breton describes the method of using nitrous oxid and oxygen for prolonged anesthesia, and tabulates a number of cases where it was thus employed. His conclusions are:

> The use of nitrous oxid and oxygen for prolonged anesthesia is satisfactory, but limited. The wealthy class alone can demand it, because of the cost of materials and the larger fee for the engagement of an experienced anesthetist. The bulky and expensive apparatus, and the difficult method of administration are not inviting, and the occasional lack of smoothness in the narcosis discomfits the surgeon Hence the employment of this method will be reserved for anesthetists in the larger cities, in the case of operations on the extremities or trunk where the condition of the patient demands an anesthesia free from danger and practically free from after-effects. The deservedly increasing popularity of the gas and ether combination predicts a similar popularity of the use of gas, oxygen and ether, when the gases are used until the incision is made and after the suturing is begun, and the ether provides complete relaxation and freedom from cyanosis during the operation proper. The contraindications are chronic alcoholism and well marked arteriosclerosis or cardiac lesions

3. **Perspiration.**—Hoelscher reports experiments on the human perspiration under the influence of drugs and in certain pathologic conditions. After a thorough cleansing, he enveloped his subjects in sterile gauze and over this secured an oil cloth. The subject was then subjected to dry heat not over 120 F. for one to two hours. When the point of tolerance had been reached, the soaked gauze was quickly removed, submitted to pressure, and the sweat collected, the amounts ranging from 3 to 32 ounces. He offers the following deductions from the experiments: 1. The hot air causes an aseptic fever or temperature elevation, despite the antipyretic action of acetanilid, sodium salicylate and quinin. He can not explain why they do not reduce the temperature. Acetanilid has no effect on the normal temperature in healthy persons and acts only in fever. It generally lessens the pulse-rate, decreases heat production and sometimes increases arterial tension. 2. The hot-air bath is of decided value in acute and chronic uremia, shown by the fact that the perspiration contains a considerable excess of urea and nitrogen. He does not recommend it to the exclusion of other measures, but as an important adjunct to treatment. The secondary effect on nutrition should not be forgotten. 3. In articular rheumatism in conjunction with salicylates, the hot-air bath gives more rapid results and lessens cinchonism. 4. Certain types of myocarditis seem to be benefited by the hot-air bath, and he reports a case. 5. Pilocarpin should never be used without the aid of hot applications to the body. So combined, there is no sialagogue and less toxic drug effect, and far more sweating than otherwise. 6. Three cases of catarrhal jaundice were sweated; all the tests failed to show bile pigments, only the epithelial débris containing bile deposits. 7. Modern sugar tests failed to reveal sugar in the sweat from diabetics. 8. A case of chronic constipation and indicanuria did not disclose the presence of indol or skatol in the sweat. 9. As regards the function of eliminating normal and abnormal substances, the skin is not to be compared with the kidneys. 10. Free sweating seems to favorably affect psoriasis, though further study is required, as also the effect on other skin diseases. Lastly, 1,000 c.c. of sweat contains about 11.5 gm. of solids (nearly 3 drams), one-half inorganic and one-half organic, and about .6 gm. (9 grains) of urea and .47 gm. (8 grains) of nitrogen.

4. **Artificial Fluorescence of Living Tissue.**—Morton gives his methods of introducing solutions or mixtures capable of fluorescence into the system, and the employment of an agency, external or internal, to excite fluorescence, either radium or the Roentgen rays. He concludes that artificially produced fluorescence of the human tissues is a well-grounded therapeutic measure. (This paper is to be concluded.)

5. **Fluorescin in Transillumination of Stomach.**—Kemp describes his method of using a solution of fluorescin in sodium bicarbonate solution, taken internally, for aiding in the transillumination of the stomach. He claims brilliant results. He suggests that the use of fluorescin solution, such as he describes, is also worthy of investigation for the purpose of cystoscopy.

6. **Trunecek's Serum.**—Chandler has employed this preparation in arteriosclerosis and asthma from the same cause, rheumatism, cerebral circulatory disturbances, tinnitus, anemia and senile fibrosis. Six cases are reported. It gave good results in rheumatism and arteriosclerosis, and he finds it a very useful aid in arterial hardening and tenseness in cases that required operation. The method of administration was by the mouth, 16 c.c. twice daily. Hypodermically, the dose is 2 c.c. daily. In his hands this method proved itself efficient, and he considers it the surest and best mode of its employment.

7. **Yellow Fever.**—Carroll's lecture is concluded. He gives the results of investigations including his experiments at Santiago, which proved that the infectious agent of yellow fever can be transferred through a filter that is impermeable to ordinary bacteria. Also that the infectious property of blood drawn from a yellow-fever patient is destroyed at a temperature of 55 C. maintained for ten minutes. In conclusion, he calls attention to some early experiments in the beginning of the last century by a student in the University of Pennsylvania, who evidently came very near proving the inoculability of the disorder, though his conclusions were that the disease was neither infectious nor contagious. The experiments were certainly striking ones.

Medical News, New York.

February 13.

8 *Abdominal Pain of Intestinal Origin. Frederick H. Wiggin.
9 *Dietetic Treatment of Arteriosclerosis. Thomas L. Coley.
10 *Enlargement of the Phalanges in Rickets; a Report of Two Cases. Jacob Sobel.
11 *Treatment of Pneumonia. *Delancey Rochester.*
12 *The Sanitary Aspect of Food Preservatives. R. G. Eccles.

8.—See abstract in THE JOURNAL of February 13, p. 484.

9. ***The Diet of Arteriosclerosis.***—Arteriosclerosis is a condition usually occurring after overexertion or in overfed individuals, and in highly nervous, ill-nourished persons. The dietetic treatment is of importance as bringing about a proper condition of metabolism in the patient. The restrictions for patients suffering from this condition laid down by Coley are, in substance, as follows: The quantity of food should be reduced, not more than one-half or two-thirds of the general average for the body weight being required. The quality is important. The proteids are to be reduced, not excluded. Meat should be taken but once daily and in small amount. The food should be well cooked and large amounts of fat avoided, as well as other undigestible substances. Alcohol, tea, coffee, cocoa, as well as tobacco, cut off or used in extreme moderation. The ingestion of large quantities of fluid should be curtailed. Regulation of meals is important. The breakfast should consist of fruit, cereal with cream, and perhaps an egg poached or soft boiled. Dinner, five or six hours later, shoulld be the heaviest meal, and consist of soup, fresh meat and vegetables, but overfeeding should be avoided, and between dinner and supper another five- or six-hour interval should elapse. The meal should be light, and consist mainly of fruit and cereals. In general, a comparatively dry diet is indicated, and the patient should not eat between meals. Elimination should be kept at its maximum of efficiency.

10. **Rickets.**—While the general osseous changes in rickets are well known and described in text-books, Sobel remarks that the changes in the fingers have been noticed by but comparatively few of the authors. He reports two cases where this peculiarity was noticeable. He thinks the condition is very frequently overlooked from lack of attention, and suggests for it the name "rachitic dacytilitis."

11. **Pneumonia.**—Rochester summarizes the general treatment of pneumonia as follows: 1. The sustaining of the metabolic processes of the individual by the administration of easily digested or predigested foods in small quantities at stated intervals, the administration of large amounts of pure water for eliminative purposes, and the administration of oxygen gas by inhalation whenever the absorbing surface of the pulmonary mucosa is involved to such extent as to interfere with proper metabolic oxygenation. 2. Elimination, (*a*) by the liver and bowel through the vigorous use of calomel and salts; (*b*) by the skin through sweats induced by external heat; (*c*) through withdrawal of blood when indicated by right heart distention. 3. Stimulation of heart by strychnin, alcohol or ammonium carbonate, and in suitable cases by the subcutaneous injection of normal salt solution. 4. The local treatment of the lung by leeching, wet cupping or dry cupping as indicated. He retabulates a series of cases published in his former article in THE JOURNAL of Nov. 9, 1901, and adds a tabulated statement of 42 more cases. Excluding fatal cases over 50 years of age, and delicate, intemperate or complicated cases, Townsend and Collidge had a ratio of 10 per cent. in 1,000 cases treated at the Massachusetts General Hospital. Rochester has a 10 per cent. mortality without excluding such cases, and if he should exclude such, it would reduce the death rate to 2.5 per cent. He thinks, however, since the cases were not selected, most of them being hospital cases, he is justified in concluding that better results were obtained from the method here indicated

than by any other of which statistics are afforded. He gives the details of its application.

12. **Food Preservatives.**—Eccles' article is similar to his former one. He points out the comparative innocuousness of salicylic acid. He says the use of such food preservatives has been increasing for the last thirty years, and public health has been increasing almost with equal steps. He notes particularly the use of beer, in which salicylic acid is largely used, and finds that, aside from the effects of alcohol, the special diseases that can be attributed to preservatives are much less in beer drinkers than in non-drinkers. The users of salicylated and borated food appear to be freer from disturbances of the digestive system than those whose location and habits would seem to contraindicate the suspicion that they use such preservatives freely. The death rate, for instance, of clergymen from diseases of the digestive system is 106.5, while that of saloonkeepers from the same cause is only 60.4. Salicylic acid in beer does not seem to be especially fatal. Moreover, he says, if the oft-repeated charge that salicylic acid interferes with digestion is true, what of it? The claim that rendering part of the food we eat indigestible is injurious to health, is a superstition of so-called sanitary science. In the small amounts in which it is used in foodstuffs it retards digestion but little. When its compensating quality of acting as a stimulant to the stomach is brought into play it overcomes its retarding power and becomes an aid to digestion. In support of this he quotes from Bartholow and Cushny.

Medical Record, New York.

February 13.

13 *Some Personal Observations and Experience of the Schott Treatment of Heart Diseases. William W. Baldwin.
14 *Contribution to the Study of Spondyloze Rhizomélique, with Report of Three Cases. Alfred Gordon.
15 *Antiseptic Treatment of Pneumonia in Infants and Children. S. Henry Dessau.
16 *Hernia in Young Children. W. B. De Garmo.
17 Radiotherapy, with Report of Cases. D. C. Dennett.

13. **The Schott Treatment.**—Baldwin describes this method and its advantages, noticing also the contraindications which are advanced arteriosclerosis, advanced chronic Bright's disease, aneurism of one of the larger arterial trunks, cases of bronchial asthma and chronic bronchitis, all of which indicate a milder and slower course of treatment. While he has never employed this treatment in cases of heart disease complicated by tuberculosis, Bezly Thorne has often employed it thus to advantage. In very grave cases of organic heart disease, where muscle degeneration is far advanced, other remedies should, at least, be tried first. In cases of great anemia and emaciation in which the effervescent baths are not well borne, carefully regulated, mild brine baths have an excellent curative effect. As a general rule, in all the grave cases where the stronger stimulating baths cause palpitation, asthmatic symptoms and cardiac weakening, irregularity of pulse, cyanosis and other unfavorable symptoms, we should return to the mild brine baths for a time. Some patients have too tender skins for any effervescent baths, and, of course, they are contraindicated. He thinks the artificial Nauheim baths are valuable, but if possible he sends his patients for an additional course at Nauheim. The Schott resistance exercises are also described; he thinks every physician should learn to practice them. They can be given before the baths can be safely employed, and, in his judgment, can be continued indefinitely, can be employed to suit almost any indication of general strength or debility, and the patients can teach themselves. They are admirable respiratory exercises, exert a tonic influence on the heart muscle, and must eventually prove of great therapeutic value. Long-continued effervescent baths at first are a mistake. Any half-hearted, pottering method of treatment is also condemned. Extreme care and prudence are necessary in these cases. One should always employ a trained nurse to assist in giving the baths, even when the physician is present.

14. **Spondyloze Rhizomelique.**—The following are the conclusions of Gordon's article:

1. While Bechterew's, as well as Strümpell-Marie's, ideas can not be accepted in the sense of the existence of two sharply defined clinical entities, the other view of considering all cases of spondylosis as an expression of rheumatism for the simple reason that the patient some time during life presented a history of rheumatism, can not be equally accepted. The onset, course, and termination are in some cases not those of rheumatism.
2. A great many cases recorded, if not all, present distinct symptoms of cord involvement showing that the etiological factor is of a more complicated order than one may suppose.
3. Between the types described by Bechterew, Strümpell and Marie there are a great many intermediary forms.
4. Spondylosis is only a symptom of a more complicated disease, the etiological factor of which is not at all elucidated.

15. **Pneumonia in Infants.**—Dessau advocates the use of carbolic acid as an internal remedy for both the bronchial pneumonia and the lobar pneumonia form of the disease, and reports a case as illustrative of its value. In it he gave internally 1 dram of a 2 per cent. solution of carbolic acid every two hours, and had creosote and eucalyptus evaporation in the sick room. He thinks it probably anticipates the crisis, and the actual crisis is converted in a more gradual termination or lysis. There is no doubt, he says, that the remedy is harmless when given in the dose recommended. The early detection of albumin in the urine is a good guide as to favorable or unfavorable prognosis, according to the amount found. The fact that albumin is found is not a contraindication.

16. **Hernia in Children.**—The causes and pathology of hernia in infants are noted by De Garmo, who tabulates the indications for operating in early life as follows:

1. Strangulated hernia—immediate operation.
2. All cases not controlled by truss.
3. Occasional protrusion with threatened strangulation.
4. When truss-wearing causes pain.
5. On children that can not be brought regularly for attention.
6. In all cases of femoral hernias.
7. On all children over 7 years of age.

His prejudice against operating on quite young children has become less every year, but he would not operate on all, because 90 per cent. of the cases under three years of age may be cured by mechanical means and proper care. After the child passes the sixth or seventh year, a non-operative cure is rare. He remarks that strangulated hernia is not as serious a matter in infants as in adults. It rarely happens that proper manipulation under anesthesia can not reduce the hernia.

American Medicine, Philadelphia.

February 13.

18 *A Case of Gunshot Wound of the Brain. John A. Wyeth.
19 *Prevention and Treatment of Puerperal Infection. Richard C. Norris.
20 *Myxoneurosis Intestinalis Membranacea. C. A. Ewald.
21 Suburethral Abscess. Richard F. Woods.
22 *Value of Histologic Examination in Carcinoma of the Uterus. Brooke M. Anspach.
23 Facial Paralysis. Norton L. Wilson.
24 *Drainage of the Chest in Empyema. Leon Brinkman.
25 Medicus et Medica. (Concluded.) Helen MacMurchy.

18. **Gunshot Wound of the Brain.**—Wyeth reports a case where a spherical bullet had lodged in the skull, and was removed by operation five months later, proper drainage being secured. There had been previously extensive suppuration, and the symptoms more or less correspond. He remarks that the case would probably have done better had immediate search for the bullet been made to remove it earlier. In cases where a bullet has passed through the skull, he would clear out the wounds of entrance and exit, and enlarge these to remove the loose fragments and arrest, by ligation, hemorrhage in the scalp wound and dura. Hemorrhage from the brain substance should not be arrested, for fear of compression by retained clots, but ligation of the extremities may be practiced to diminish pressure in the injured region. When the hemorrhage has ceased, the blood thus retained in the veins may be gradually and carefully returned to the general circulation. Where the foreign body has lodged and is small and no hemorrhage has occurred and no functional disturbance, he would advise careful aseptic treatment of the wound of extrance, enlarging it for the purpose of removing loose pieces and for the assurance that the foreign body has penetrated beyond the dura into the brain. When the missile is of larger caliber or serious symptoms of injury to the brain are present, the wound of entrance should be thoroughly exposed and cleansed, broken pieces of bone removed, and efforts

3. Perspiration.—Hoelscher reports experiments on the human perspiration under the influence of drugs and in certain pathologic conditions. After a thorough cleansing, he enveloped his subjects in sterile gauze and over this secured an oil cloth. The subject was then subjected to dry heat not over 120 F. for one to two hours. When the point of tolerance had been reached, the soaked gauze was quickly removed, submitted to pressure, and the sweat collected, the amounts ranging from 3 to 32 ounces. He offers the following deductions from the experiments: 1. The hot air causes an aseptic fever or temperature elevation, despite the antipyretic action of acetanilid, sodium salicylate and quinin. He can not explain why they do not reduce the temperature. Acetanilid has no effect on the normal temperature in healthy persons and acts only in fever. It generally lessens the pulse-rate, decreases heat production and sometimes increases arterial tension. 2. The hot-air bath is of decided value in acute and chronic uremia, shown by the fact that the perspiration contains a considerable excess of urea and nitrogen. He does not recommend it to the exclusion of other measures, but as an important adjunct to treatment. The secondary effect on nutrition should not be forgotten. 3. In articular rheumatism in conjunction with salicylates, the hot-air bath gives more rapid results and lessens cinchonism. 4. Certain types of myocarditis seem to be benefited by the hot-air bath, and he reports a case. 5. Pilocarpin should never be used without the aid of hot applications to the body. So combined, there is no sialagogue and less toxic drug effect, and far more sweating than otherwise. 6. Three cases of catarrhal jaundice were sweated; all the tests failed to show bile pigments, only the epithelial débris containing bile deposits. 7. Modern sugar tests failed to reveal sugar in the sweat from diabetics. 8. A case of chronic constipation and indicanuria did not disclose the presence of indol or skatol in the sweat. 9. As regards the function of eliminating normal and abnormal substances, the skin is not to be compared with the kidneys. 10. Free sweating seems to favorably affect psoriasis, though further study is required, as also the effect on other skin diseases. Lastly, 1,000 c.c. of sweat contains about 11.5 gm. of solids (nearly 3 drams), one-half inorganic and one-half organic, and about .6 gm. (9 grains) of urea and .47 gm. (8 grains) of nitrogen.

4. Artificial Fluorescence of Living Tissue.—Morton gives his methods of introducing solutions or mixtures capable of fluorescence into the system, and the employment of an agency, external or internal, to excite fluorescence, either radium or the Roentgen rays. He concludes that artificially produced fluorescence of the human tissues is a well-grounded therapeutic measure. (This paper is to be concluded.)

5. Fluorescin in Transillumination of Stomach.—Kemp describes his method of using a solution of fluorescin in sodium bicarbonate solution, taken internally, for aiding in the transillumination of the stomach. He claims brilliant results. He suggests that the use of fluorescin solution, such as he describes, is also worthy of investigation for the purpose of cystoscopy.

6. Trunecek's Serum.—Chandler has employed this preparation in arteriosclerosis and asthma from the same cause, rheumatism, cerebral circulatory disturbances, tinnitus, anemia and senile fibrosis. Six cases are reported. It gave good results in rheumatism and arteriosclerosis, and he finds it a very useful aid in arterial hardening and tenseness in cases that required operation. The method of administration was by the mouth, 16 c.c. twice daily. Hypodermically, the dose is 2 c.c. daily. In his hands this method proved itself efficient, and he considers it the surest and best mode of its employment.

7. Yellow Fever.—Carroll's lecture is concluded. He gives the results of investigations including his experiments at Santiago, which proved that the infectious agent of yellow fever can be transferred through a filter that is impermeable to ordinary bacteria. Also that the infectious property of blood drawn from a yellow-fever patient is destroyed at a temperature of 55 C. maintained for ten minutes. In conclusion, he calls attention to some early experiments in the beginning of the last century by a student in the University of Pennsylvania, who evidently came very near proving the inoculability of the disorder, though his conclusions were that the disease was neither infectious nor contagious. The experiments were certainly striking ones.

Medical News, New York.

February 13.

8 *Abdominal Pain of Intestinal Origin. Frederick H. Wiggin.
9 *Dietetic Treatment of Arteriosclerosis. Thomas L. Coley.
10 *Enlargement of the Phalanges in Rickets; a Report of Two Cases. Jacob Sobel.
11 *Treatment of Pneumonia. Delancey Rochester.
12 *The Sanitary Aspect of Food Preservatives. R. G. Eccles.

8.—See abstract in The Journal of February 13, p. 484.

9. The Diet of Arteriosclerosis.—Arteriosclerosis is a condition usually occurring after overexertion or in overfed individuals, and in highly nervous, ill-nourished persons. The dietetic treatment is of importance as bringing about a proper condition of metabolism in the patient. The restrictions for patients suffering from this condition laid down by Coley are, in substance, as follows: The quantity of food should be reduced, not more than one-half or two-thirds of the general average for the body weight being required. The quality is important. The proteids are to be reduced, not excluded. Meat should be taken but once daily and in small amount. The food should be well cooked and large amounts of fat avoided, as well as other undigestible substances. Alcohol, tea, coffee, cocoa, as well as tobacco, cut off or used in extreme moderation. The ingestion of large quantities of fluid should be curtailed. Regulation of meals is important. The breakfast should consist of fruit, cereal with cream, and perhaps an egg poached or soft boiled. Dinner, five or six hours later, shoulld be the heaviest meal, and consist of soup, fresh meat and vegetables, but overfeeding should be avoided, and between dinner and supper another five- or six-hour interval should elapse. The meal should be light, and consist mainly of fruit and cereals. In general, a comparatively dry diet is indicated, and the patient should not eat between meals. Elimination should be kept at its maximum of efficiency.

10. Rickets.—While the general osseous changes in rickets are well known and described in text-books, Sobel remarks that the changes in the fingers have been noticed by but comparatively few of the authors. He reports two cases where this peculiarity was noticeable. He thinks the condition is very frequently overlooked from lack of attention, and suggests for it the name "rachitic dacytilitis."

11. Pneumonia.—Rochester summarizes the general treatment of pneumonia as follows: 1. The sustaining of the metabolic processes of the individual by the administration of easily digested or predigested foods in small quantities at stated intervals, the administration of large amounts of pure water for eliminative purposes, and the administration of oxygen gas by inhalation whenever the absorbing surface of the pulmonary mucosa is involved to such extent as to interfere with proper metabolic oxygenation. 2. Elimination, (*a*) by the liver and bowel through the vigorous use of calomel and salts; (*b*) by the skin through sweats induced by external heat; (*c*) through withdrawal of blood when indicated by right heart distention. 3. Stimulation of heart by strychnin, alcohol or ammonium carbonate, and in suitable cases by the subcutaneous injection of normal salt solution. 4. The local treatment of the lung by leeching, wet cupping or dry cupping as indicated. He retabulates a series of cases published in his former article in The Journal of Nov. 9, 1901, and adds a tabulated statement of 42 more cases. Excluding fatal cases over 50 years of age, and delicate, intemperate or complicated cases, Townsend and Collidge had a ratio of 10 per cent. in 1,000 cases treated at the Massachusetts General Hospital. Rochester has a 10 per cent. mortality without excluding such cases, and if he should exclude such, it would reduce the death rate to 2.5 per cent. He thinks, however, since the cases were not selected, most of them being hospital cases, he is justified in concluding that better results were obtained from the method here indicated

32 *The Pathology and Treatment of Recent Fractures of the Patella. S. C. Plummer.
33 *Experimental Notes on the Treatment of Diabetes. Alfred C. Croftan.
34 *Relation of the Medical Department of the United States Army to the Profession. W. C. Borden.
35 The Intestinal and Stomach Reflexes. Albert Abrams.

29. **Kidney and Ureteral Diseases.**—Kolischer calls attention to the good effects of merely mechanical methods in the treatment of kidney and ureteral affections. He thinks mechanical methods are possibly responsible for the relief of symptoms which are ordinarily otherwise accounted for. In cases where no obstruction is present and suppuration has occurred, he thinks the pus and cellular débris may possibly have become attached to the wall and undergo decomposition, leading to the production of toxemia and certain symptoms which continue as long as these remain in place, but mere flushing of these deposits causes a rapid improvement, though the original trouble is not materially influenced.

30. **Typhoid.**—Wells emphasizes the importance of early diagnosis, based on the medical history of the patient, the symptomatology and careful study of the development of the disease from day to day, including examination of the urine, and blood and cultural experiments that will throw light on the subject. and all these should be subjected to a very rigid analysis in every case.

32. **Patellar Fractures.**—Plummer offers the following as a fair statement of the present status of the question of treatment of recent simple transverse fracture of the patella: 1. Operative treatment should never be undertaken unless under the very best conditions for asepsis. 2. Presuming ideal aseptic conditions, not every case should be subjected to operation, but only healthy patients of suitable age, with at least half an inch of separation of the fragments and lateral tears which compromise the "reserve extension apparatus," or in patients following arduous occupations. 3. Operative treatment meets the indications in a way the non-operative can only partially achieve, but good functional results follow the latter as a rule. 4. Early massage in all cases favors the early and complete restoration of function of the joint, and should always be employed. 5. The operation should be an open arthrotomy. 6. Absorbable suture material applied to the soft parts is sufficient in nearly every case.

33. **Diabetes.**—Croftan has found that the normal sugar content of the blood is destroyed on standing at blood temperature, and that the lymph possesses more sugar-destroying powers than the blood. The serum of the blood and lymph possesses no glycolytic power, nor do the red blood corpuscles. The leucocytes, therefore, are responsible. Glycolysis is not dependent on the life of these cells. The sugar-destroying agent is a non-organized chemical body, which he vaguely calls the glycolytic ferment. Its origin is not positively determined, but it is contained in all organs and tissues. The leucocytes probably act as carriers. The pancreas contains no more glycolytic ferment than some other organs, and he thinks that it and the adrenals probably act as regulators of sugar metabolism, and not as generators of a sugar-destroying agent. Their functions, however, are still very incompletely understood. Applying these data to the therapeusis, two paths are open: Either to supply glycolytic ferment in diabetes, or to stimulate the manufacture and liberation of this ferment by the administration of remedies that will so act. The former method has been tried and the results are not satisfactory, though something can still be done. He thinks the use of intravascular administration of zymase and the glycolytic ferment of yeast is promising. The administration of yeast by the mouth is also worthy of trial. The second method, that of stimulating the glycolytic process from within, has occupied him of late, and he has studied various factors to determine the intensity and rapidity of ferment action, such as the temperature of the medium and its reaction, the concentration of the solution in fermentable substances and their splitting products, and the presence or absence of certain chemical bodies (poisons and ions). The optimum temperature for the glycolysis is between 39.8 and 40 C., somewhat higher than the normal temperature of the body. In some institutions the temperature is raised artificially to promote sugar destruction. This is done by means of hydrotherapeutic procedures, and good results are reported. It is well-known, too, that the occurrence of infectious fevers in diabetes is often accompanied by a decrease or even a disappearance of the glycosuria. This, however, may be due to other causes. The reaction of the medium is of great importance. Slight alkalinity is the optimum; slight acidity greatly impairs, and great acidity as well as great alkalinity inhibit the action of the ferment. This may help to explain the good effects of alkali therapy in diabetes, and the tendency to increased glycosuria following diabetic acidosis. The presence of sugar, over 1 per cent. in quantity, retards the ferment action, and the same applies to the presence of splitting products, such as alcohol and lactic acid. There are no practical therapeutic suggestions from these facts. Finally, the effect of certain chemicals (ions) has been studied, and some important results obtained. Three substances should be mentioned as possessing the power of stimulating the ferment to an astonishing degree in very dilute solutions. These are the salicylates of the alkalies, the alkali carbonates (aside from their reaction), and carbolic acid in great dilution. In dilution above ⅛ molecular the tendency of all three substances is to retard; below 1/50th molecular their effect is indifferent, and at about 1/25th their effect is greatest. The suggestion of giving these remedies internally has been followed out empirically, and some authors report exceedingly favorable results with carbolic acid or the salicylates.

34.—See abstract in THE JOURNAL, xli, p. 1041.

Brooklyn Medical Journal.

February.

36 Address, Medical Society of County of Kings. James P. Warbasse.
37 *Beck's Operation for Hypospadias. A. T. Bristow.
38 Normal Involution of Appendix. Robert T. Morris.
39 *Further Observations on the Controlling Influence of Ovarian Plexus. W. L. Chapman and L. N. Foote.
40 *Concerning the Clinical Signs of Ectopic Gestation. Edward J. Morris.
41 *X-ray Therapy—Its Limitations. John A. Lee.

37. **Beck's Operation for Hypospadias.**—Bristow describes Beck's operation of extending the urethra to the normal meatus in cases of hypospadias, and reports a case where he operated three times according to this method. He advanced the urethra each time, but without meeting with complete success until the third operation, mainly because he did not go far enough toward the pubes in the beginning and free enough of the urethra to admit of its proper stretching. The final result, however, was excellent.

39. **Ovarian Plexus.**—A former work by the authors is first mentioned (see abstract in THE JOURNAL, vol. xxxvii, 43, p. 1730.) Chapman and Foote remark further in favor of the conclusion that the ovarian plexus is the controlling nerve supply to the essential female organs of generation. The grounds for this opinion are summed up as based on the following:

1. The anatomical distribution of the ovarian and uterine plexuses in relation to the functions of these organs. 2. The connections of the plexuses with the central nervous system. 3. The connections of these plexuses with trophic nerve centers and the dependency of the organs they supply on trophic nerve action. 4. The histologic structure of the plexuses, i. e., the character of the nerve fibers of which they are composed. 5. The importance of a joint nerve supply to the ovary, tube and uterus which is effected solely through the ovarian plexus. 6. The development of these organs in connection with their nerve supply, on which is bas[illegible] the nerve supply to an organ which is dev[illegible] [illegible]at organ, is its essential nerve supply. 7. [illegible] cases which demonstrate that pathologic co[illegible] [illegible]erve fibers of the ovarian plexus disturb the functions of the ovary and uterus. 8. Experiments on pregnant cats, which showed that electrical stimulation applied to the ovarian plexus produced contractions of the uterus and fallopian tubes.

40. **Ectopic Gestation.**—Morris reports a case and discusses the symptoms. While the three principal signs, according to Vignard, viz., retarded menstruation, sharp colicky and abdominal pain, and small but persistent uterine hemorrhage accompanying them, are convincing when present, the exceptions are so numerous as to render diagnosis very difficult in some cases. The fact that it is not infrequent for a probable diagnosis only of ectopic pregnancy to be made before the abdomen is opened is sufficient evidence of this fact.

41. **X-Ray Therapy.**—Lee thinks that all epitheliomas, no matter of what type, will show a large proportion of apparent cures, even epithelioma of the cervix, and that the *x*-ray method will be the elective one in such cases. In all operable cancers surgery should be the treatment adopted. In small scirrhus where surgery is for any reason contraindicated, he thinks the *x*-ray might be used with favorable expectations, but in large cancers, the more removed with the knife and the less left to be treated by the rays, the better will be the results. There is a large field for investigation in the post-operative treatment of cancers by this method. It is a question, he thinks, whether all cases should be submitted to the rays directly after operation and before the liver becomes studded with nodular growths. In recurrent cancer, suitable cases properly treated will not show as unsatisfactory results as he has been obliged to report in the case here given. He has always believed that there has been too much surgery in recurrences, surgery which has not even the doubtful advantage of prolonging life. Recurrences along the scar, either ulcerative or of the type known as "en cuirasse," are favorable for the *x*-ray. Hardened, pea-like glands in the supra-clavicular region will readily submit to it. Large masses are not so favorable, and the time to treat recurrence is when it is first recognized, and no time should be lost. When involvement of either the liver or lung is shown it is hardly worth while to attempt to use the *x*-rays nor should rapid recurrence in tumor growths be treated. Exceedingly vascular tumors or rapidly progressive cases with a short history are not suitable. It may be stated as an axiom in *x*-ray therapy: The more acute the disease, the more hopeless it is; the more chronic the condition, the greater is the possibility of cure. The *x*-rays, he holds, do not prevent or affect metastasis, and as a palliative measure should only be used for pain. For this they are better than morphin and have none of its disadvantages.

New York State Journal of Medicine, N. Y.

February.

42 *Prolonged Fasting as a Factor in the Treatment of Acute Diseases. With Special Reference to Affections of the Alimentary Canal. Norton J. Sands.
43 Pott's Disease, Limited to the Atlas and Axis. Prescott Le Breton.
44 *When and How to Operate for Gallstones. Irving S. Haynes.
45 *Extradural Abscess and Mastoid Disease. Seymour Oppenheimer.
46 Typhoid Epidemic in Ithaca. Chauncey P. Biggs.

42. **Fasting in Treatment.**—Sands finds that prolonged fasting is a very excellent treatment, according to his experience, in typhoid fever, and that patients suffering from pneumonia and influenza, as also after severe injuries and after operations, also do better without nourishment for a while. The most convincing results, however, are in the gastro-intestinal disorders, such as typhoid. It is his rule when called to see a typhoid case to tell the family frankly that the patient should be kept on a strict water diet from eighteen to twenty-one days, assuring them of a more comfortable illness and more certain recovery. He finds that this plan relieves the abdominal symptoms, keeps the temperature lower and is otherwise generally beneficial. He summarizes as follows:

> 1. Acute illnesses in general, of any severity, do better without nourishment, for the reason that, on account of the fever and the poison of the disease, the food is not digested or assimilated; and, if not, adds a gastro-intestinal disturbance to the already existing disease. 2. In acute diseases of the alimentary canal in particular, all nourishment should be withheld until complete subsidence of symptoms. It is quite possible for a patient to fast twenty-one days, or even longer, without the development of any alarming weakness. 3. The indications for the allowance of food are the absence of abdominal symptoms, a cleaning of the tongue and a continuously normal or subnormal temperature.

44.—See abstract in THE JOURNAL, xli, p. 1159.

45.—Ibid., p. 1108.

Post-Graduate, New York.

January.

47 Education of Children with Impaired Hearing. Max Toeplitz.
48 *Dangers of Opium in Pneumonia. Stephen S. Burt.
49 Case of Dermoid Cyst of Both Ovaries. Charles F. Adams.
50 Treatment of Chronic Non-suppurative Disease of the Middle Ear. D. B. St. John Roosa.

48. **Opium in Pneumonia.**—Burt insists on the dangers of the use of opium in pneumonia. He thinks of all narcotics it is the one that tells most rapidly on the respiratory nerve centers. If, with a respiration of 60, or even 50 or less in the minute, the nerve centers are sent to sleep by a potent narcotic, it is obvious that the influence exerted at the critical time can not be otherwise than unfavorable.

Annals of Gynecology and Pediatry, Boston.

February.

51 *Some of the Cardinal Points in the Diagnosis of Abdominal Tumors. H. C. Crowell.
52 *Tuberculosis of the Peritoneum. Lewis S. McMurtry.
53 *The Causes of Failure Following Operation for Nephroptosis. Augustin H. Goelet.

51. **Abdominal Tumors.**—Crowell points out the special points in the diagnosis of these growths, and insists on the importance of the general practitioner's co-operating willingly and promptly with the surgeon in the study, diagnosis and treatment of these lesions.

52. **Peritoneal Tuberculosis.**—McMurtry describes the symptoms of peritoneal tuberculosis, and remarks that in a large number of cases of effusion, where the disease was not diagnosticated prior to laparotomy, he has been gratified to see an apparent permanent cure, some of these having been under observation from six to ten years. In a considerable proportion of apparently favorable cases, however, there was no improvement. He thinks in those cases of marked acuteness characterized by high temperature and rapid pulse, both with and without effusion, operation generally fails to arrest the active progress of the disease. Nevertheless the hopeless character under any other method of treatment, and the harmlessness of section under aseptic precautions, justifies, he believes, operation in every case, especially if there is effusion and diagnosis is not absolutely positive. Tubercular invasion of the fallopian tubes and ovaries from the intestinal tract he thinks is more common than is generally supposed. Thorough removal of the invaded structures is usually followed by permanent cure.

53.—See abstract in THE JOURNAL, xli, p. 1108.

Archives of Ophthalmology, New Rochelle, N. Y.

January.

54 *Report of 312 Cases of Cataract Extraction with a Small Peripheral Button-hole in the Iris. H. Beckles Chandler.
55 Delirium After Eye Operations. C. E. Finlay.
56 *Ruptures of the Iris. L. Weiss and W. Klingelhoeffer.
57 Sarcoma of the Orbit, Report of a Case Cured by the X-ray. L. Webster Fox.

54. **Cataract Extraction.**—Chandler has operated in over 300 cases on patients over 40 years of age in which he has removed a round piece, 1 mm. in diameter, as near to the root of the iris as possible. This allows drainage and the expressing of the cortical, which always accumulates above and under the iris. In washing out the anterior chamber the fluid used will flow backward through the opening, carrying with it the débris. In operating thus he tries to make his cut exactly in the corneoscleral junction, expressing the lens in the usual manner, but not using force, after the lens is delivered, to keep the iris prolapsed, knowing that he can remove the cortical through the hole. The result is that he has had only three cases of loss of vitreous in 312 extractions and one of these occurred in endeavoring to remove an opaque capsule. The cause of prolapse he attributes to two factors. The most important one is a flabby iris, and the other is tardy closure of the wound. The use of eserin or pilocarpin to tone up the sphincter results in posterior synechiæ in a large percentage of cases, even when atropin is used. In making this small opening it is absolutely necessary to have a forceps the teeth of which are at the tip end, and scissors whose blades are very thin; otherwise it is made larger and further down than intended. He has usually made the opening after having extracted the lens, as it seems that the small amount of aqueous under the iris acted as a buffer and facilitated its extraction.

56. **Rupture of the Iris.**—Three cases are reported by Weiss and Klingelhoeffer, and they tabulate reported cases to ascertain, if possible, the mechanism of the injury. The trauma in the eye was in all cases violent, and where it was possible to tell the direction from which the blow came, the ruptures of the iris were on the opposite side from the place of impact. They criticise the various theories that have been offered, and

explain the laceration by the stretching of the sphincter most severely at the point perpendicular to the direction of the applied force and there ruptures occur. The elasticity of the sphincter must also play a part.

Carolina Medical Journal, Charlotte.

January.

58 *Lobar Pneumonia in the Mountain Sections. J. D. Roberts.
59 Bacteriology of Acute Lobar Pneumonia. J. Larkin Ballou.
60 How to Treat a Common Cold Successfully. C. R. Marshall.
61 Catarrhal Diseases of the Upper Air Passages. Clarence G. Clark.
62 Bronchial and Laryngeal Inflammation—Typical Features and Treatment. Uriel S. Boone.
63 Practical Dietetics in the Treatment of Pneumonia. T. J. Biggs.
64 Pneumonia. M. L. Smoot.

58. **Pneumonia.**—Roberts, who has practiced both in the lower country of North Carolina at an elevation of 200 or 300 feet above the sea, and also in the mountain region at from 3,000 to 4,000 feet elevation, finds certain differences in the type of pneumonia in the two sections. The pneumococcus is nearly always present in the mountain region and the cases occur mainly between December and April. He attributes much of the causation to the long cold winters and the impossibility of avoiding dampness. He has found it following influenza more than any other disorder, and has never seen it do so anywhere to such an extent as there. The alcohol complications of pneumonia are not so common, as the people are not generally habitual drinkers, and the epidemic feature is not pronounced. The most serious complications are those of the heart, which are very frequent, and the other complications, gastric and bowel troubles, are less troublesome than elsewhere. The mortality, he thinks, is not greater in the mountains than in the lower region. His own ratio in the Eastern part of the state was from 10 to 12 per cent. while in the mountains he thinks it will not exceed 1 in 8.

Virginia Medical Semi-Monthly, Richmond.

January 22.

65 *Therapeutic Value of Intravenous Injections of Collargol in Septic Affections. George T. Harrison.
66 Some Experiments and Conclusions in Hypnotic Therapeutics. W. H. Wallace.
67 Acute Lobar Pneumonia. W. B. St. John.
68 Treatment of Pneumonia. T. Jefferson Hughes.
69 Typical Case of Exophthalmic Goiter. William M. Lyne.
70 Aneurism of External Iliac—Spontaneous Cure by Sloughing. Southgate Leigh.

65. **Collargol in Septic Affections.**—Harrison's experience with collargol has confirmed the testimony of Credé, Schmidt and others, that given intravenously it is the best therapeutic measure for septic disorders. He uses a 5 per cent. solution and injects a hypodermic syringeful. He claims that it is entirely free from danger. The good effects usually appear in about six hours. He reports cases of pyemia and puerperal septicemia thus treated with the best results.

Vermont Medical Monthly, Burlington.

December 25.

71 Commitment and Treatment of the Insane. Walter D. Berry.
72 Some of the Cardinal Points in the Diagnosis of Abdominal Tumors. H. C. Crowell.
73 *The Temperature as a Guide to the Existence of Suppuration. Lyman Allen.

73. **Temperature in Suppuration.**—Allen notices the lack of relation between temperature conditions and suppurative processes. The latter, he finds, are often unattended by fever, even when acute, and the absence of fever must have little weight in the diagnosis of suppuration. Since a rise of temperature above 100 F. occurs in about two-thirds of all aseptic cases, the presence of fever alone is of little value in making a diagnosis of suppuration.

American Medical Compend, Toledo.

February.

74 *Observations on Alopecia Areata with a Report of Six Cases. Edward Melchers.
75 Milk as a Carrier of Disease. C. Longfellow.
76 "Fersan," a Valuable Addition to Our Materia Medica. Charles D. Aaron.

74. **Alopecia Areata.**—Melchers describes cases and discusses the condition. He concludes that both the neurotic and parasitic disease are not conditions of the hair, but of the hair follicles and papillæ. The real parasite can be found only in sections of the scalp affected with progressive alopecia, and only by competent bacteriolgists. Most cases are parasitic, and ten or twenty local applications of trikresol will usually effect a cure. Creolin is equally good, but has the disadvantages of stickiness and staining qualities. In the neurotic variety, however, these remedies are of little use. Electricity and general and constitutional treatment are advised. He says the records show a great many cases of alopecia areata, especially in France, which can be traced to the hair brush and comb of the barber shop. He hopes to see a law passed compelling the barbers to disinfect their toilet utensils by formaldehyd gas. In conclusion, he quotes from Hyde as to the moral effect of alopecia on the individual and the need of the supporting assurances of the physician.

Canada Lancet, Toronto.

February.

77 Diseases Due to Organic Insufficiency. W. G. McCallum.
78 Leiomyoma. J. O. Todd.
79 *The Pretyphoid Fever State. Robert D. Rudolf.
80 Angina Pectoris. John Caven.
81 The Diagnosis and Treatment of Tuberculous Peritonitis. A. Groves.

79. **Pretyphoid State.**—The condition of general gastrointestinal ill health that sometimes precedes typhoid is noticed by Rudolf. He has had in his experience a number of cases where typhoid fever set in, generally of a severe type, after such a preliminary. Several cases are reported. The possibilities are that the lowered state of health, especially the gastro-intestinal disturbance, predisposes to typhoid infection by lowering the general or local resisting power, or that the typhoid bacillus may be in the intestines for weeks setting up a certain amount of disturbance until, either on account of increased virulence or the lowered resistance of the host, true typhoid fever occurs. As regards the first of these possibilities, it is favored by the fact that gastrointestinal disturbance predisposes to Asiatic cholera and dysentery, and it is not unlikely that it may also predispose to typhoid. It was noticed in the recent British campaign that the soldiers suffering from catarrhal bowel affections were the most prone to typhoid. The second possibility seems to him hardly as well supported by facts, though there are still some that favor it, such as the diarrhea that occurs during Asiatic cholera or during typhoid epidemics, which are not identifiable with the true disorder. He thinks, however, that the balance of evidence is in favor of the first proposition, that the condition of ill health lowers the resistance and favors invasion by the typhoid germ.

Northwestern Lancet, Minneapolis.

February 1.

82 Septic Endocarditis. L. A. Nippert.
83 Mastoid Abscess: Its Cause and Prevention. Frank C. Todd.

Pediatrics, New York.

December.

84 On Appetite Juice and the Ethics of Eating. J. G. Adami.

Albany Medical Annals.

February.

85 St. Peter's Hospital. Charles E. Davis.
86 Treatment of Diphtheria. Douglas C. Moriarta.
87 Report of Thirty Operative Cases of Appendicitis. Alvah H. Traver.

Kansas City Medical Index-Lancet.

February.

88 What of the Surgical Future? Daniel Morton.
89 Drinking Water, Examination of Same—Kansas City Supply. Jean R. Moechel.

Journal of Cutaneous Diseases, New York.

February.

90 Tuberous Iodid of Potash Eruption Simulating Histologically an Epithelioma. Douglass W. Montgomery.
91 Atypical Lesions in Ichthyosis. Mortimer A. Moses.
92 Case of Mycosis Fungoides Treated by the X-ray. Albert E. Carrier.
93 Case of Actinomycosis. H. J. F. Wallhauser.

Journal of Mental Pathology, New York.

Vol. v, Nos. 2-3.

94 Differential Diagnosis in Cases of Ideo-obsessional Constitution. Serge Soukhanoff.
95 Suggestion During Narcosis Produced by Some Halogenous Derivatives of Ethane and Methane (Ethyl-Methylic Suggestion). Paul Farez.
96 Abnormal Children in Italy. Dr. Manheimer-Gommès.

97 Suicidal and Homicidal Acts. Their Clinical Aspects and Medicolegal Significance. (Continued.) Louise G. Robinovitch.

Journal of the Michigan State Medical Society, Detroit.

February.

98 Relation of Surgical Pathology to Surgical Diagnosis. Joseph C. Bloodgood.
99 Essential Points of Distinction Between Cerebral and Mental Disease. Hiram A. Wright.
100 Standards of Milk Supplies in Detroit and Various Cities. Guy L. Kiefer.
101 Milk in Its Pathologic Relations. George Duffield.
102 Hot Springs, Arkansas, for Chronic Rheumatism. William F. Bernart.
103 Cause and Treatment of Morphin Inebriety. W. M. Donald.

Medical Times, New York.

February.

104 Life, and the Potentialities in Their Control Over Matter. E. C. Hebbard.
105 Interesting Features in Influenza. M. Shellenberg.
106 The Care of the Feet from a Medical Standpoint. H. Taylor.
107 Diagnosis, Causes and Treatment of Dysuria. G. R. Johnson.
108 Problems in Surgery. M. McCrory.

Medical Bulletin, Philadelphia.

February.

109 Vaccinia and Vaccination. John V. Shoemaker.
110 Internal Erethrotomy. Charles C. Miller.
111 Diphtheria. E. W. Mitchell.
112 Smallpox as Considered by the Ancient Arabian Physician, Rhazes. Samuel H. Brown.

Journal of Medicine and Science, Portland, Me.

January.

113 Post-operative Hernia. F. L. Dixon.
114 Secretory Neuroses of the Stomach. Chauncey R. Burr.
115 Oculist vs. Optician. E. O. Chellis.

Washington Medical Annals, Washington, D. C.

January.

116 Notes on the Physiologic and Therapeutic Action of Radium. Truman Abbe.
117 Case of Osteomyelitis. J. Ford Thompson.
118 Case of "Flail" Joint: Result of Informal Operation on Elbow-joint for Shot Injury. W. C. Borden.
119 Some Reminiscences of Postmortem Work. D. S. Lamb.
120 Diagnosis and Treatment of Appendicitis—with Tabulated Report of 98 Cases of Appendectomy. W. P. Carr.
121 Case of Fracture—Dislocation of the Spine. Laminectomy. Edward A. Balloch.
122 Address, Medical Society of District of Columbia. George M. Kober.
123 Absence of Prolonged Nausea After Anesthesia by the Nitrous-oxid and Ether Method. Edwin M. Hasbrouck.
124 Treatment of Chronic Bronchitis. Thos. A. Claytor.
125 "Colds in the Head," Their Prevention and Cure. Walter A. Wells.
126 Report of a Case of Gunshot Wound. A. R. Shands.
127 Case of Appendicitis with the Appendix in the Sac of a Femoral Hernia. A. R. Shands.
128 Cholecystectomy for Results of Biliary Obstruction and Cholangitis. I. S. Stone.

Alabama Medical Journal, Birmingham.

January.

129 Treatment of Compound Fracture of Long Bones. W. H. Wilder.
130 Studies in Infant Feeding. S. W. Purifoy.
131 Some Frequently Unrecognized Symptoms of Eyestrain. S. Kirkpatrick.
132 Diagnosis and Treatment of Gallstones. Mack Rogers.
133 President's Address, Southern Medical College Association.

Medical Review of Reviews, New York.

January 25.

134 Cancer and Its Origin. (Continued.) Henry Morris.

Canadian Journal of Medicine and Surgery, Toronto.

February.

135 Internal Medication for Direct Remedial Effects. Geo. M. Aylesworth.
136 *Physiologic Generative Cycle of Woman. Jennie G. Drennan.

136—See abstract in The Journal, xli, p. 627.

International Journal of Surgery, New York.

February.

137 *Diagnosis and Operation for Gallstones. W. D. Haggard.
138 Post-operative Treatment. H. L. Stickney.
139 Radical Operation. A. R. Amos.
140 The Surgical Assistant. (Operations on the Bladder and Urethra.) Walter M. Brickner.

137.—See abstract in The Journal, xli, p. 1106.

Medical Standard, Chicago.

February.

141 A Surgical Clinic (Hypertrophy of Prostate, etc.). N. Senn.
142 Examination of the Rectum. Charles J. Drueck.
143 Antisepsis in Typhoid Fever. L. F. Schmauss.
144 Removal of Calculus from the Pelvic Ureter per Vaginam. Byron Robinson.
145 Growing Importance of the Bubonic Plague. J. Howe Adams.
146 Defective Speech. James M. Brown.

Northwest Medicine, Seattle, Wash.

January.

147 Injuries to the Lower End of the Humerus in Childhood—A Study of the Conditions Existing Five Years After the Accident. Charles L. Scudder.
148 Pulmonary Embolism. R. E. Walker.
149 Septic Synovitis. Alfred Raymond.
150 Study of Practical Anatomy with that of Medicine and Surgery. Joseph Gibbs.

Fort Wayne Medical Journal-Magazine.

December.

151 On the Limitation of Drug Medication. Charles W. Frink.
152 Report on the Results of the Use of the Elastic Ligature (McGraw) in Twelve Cases of Gastroenterostomy. Charles B. Nancrede.

Medical Examiner and Practitioner, New York.

January.

153 Tuberculosis and Life Insurance. Thomas G. Allen.
154 Occupation in Relation to Longevity. John M. French.
155 Medical Examinations for Life Insurance in Large Cities. L. Brackett Bishop.
156 Centrifuge Technic. William H. E. Wehner.
157 A Few Practical Points on Urinary Analysis. Joseph D. Nagel.
158 Special Qualifications of a Physician as a Life Insurance Examiner. J. D. Pratt.

FOREIGN.

Titles marked with an asterisk (*) are abstracted below. Clinical lectures, single case reports and trials of new drugs and artificial foods are omitted unless of exceptional general interest.

Semaine Médicale, Paris.

1 (XXIV, No. 3.) *Des indications thérapeutiques dans la cholelithiase infectée. A. Chauffard.
2 L'hypotension arterielle chronique. A. Ferrannini. Abstract.
3 (No. 4.) *La coloration vitale des tissus et des bactéries pour augmenter la pénétration et favoriser l'action curative des rayons chimiques. R. Odier (Geneva).
4 Sigmoidite et perisigmoidite. F. Lejars.
5 Texte de la nouvelle Convention Sanitaire Internationelle portant règlement pour prévenir l'invasion et la propagation de la peste et du choléra. (Commenced in No. 3.)

1. **Medical Treatment of Infectious Cholelithiasis.**—Chauffard believes in operating on such cases as the routine procedure, but some are occasionally encountered in which operation is contraindicated or temporizing is allowable. He dislikes to operate, for instance, on women between 50 and 60 who are chronically addicted to lithiasis, obese, the abdomen fat and flabby, the myocardium soft and hypotonic, with generally a tendency to varicose veins and a little sugar or albumin in the urine. The organism has little resistance and the abdomen is a bad one for surgical intervention, while such patients can be cured by medical treatment. He describes other types of moderate intensity in which medical treatment should be tried first, guided by the type of the fever, intermittent, remittent or continuous, by the type of the leucocytosis, the curve generally paralleling that of the temperature, by the retention of bile and the local signs indicating a tendency toward suppuration which forces the surgeon's hand. He argues that an infectious gallstone affection is comparatively free from the dangers surrounding an appendicitic one. It does not develop so insidiously, and the evolution toward suppuration can be detected. A still further difference between the two is that there is no effective medical treatment for appendicitis, while that for infectious cholelithiasis is very promising. It consists in the application of ice to the gall-bladder region or hot compresses if the ice is not tolerated. The first indication is to put the patient on an exclusive milk diet or in severe cases allow nothing but water for twenty-four to forty-eight hours. Diuretic teas may be used to advantage. The biliary passages are then to be sterilized by salicylic medication, for which he prefers sodium salicylate associated with salol and betol (naphthol salicylate). He gives three doses in the twenty-four hours of a combination of the three in equal parts, 1 gm. each. When the infectious symptoms have subsided he returns to the systematic preventive medication with which he keeps his patients free from recurring liver colic. He accomplishes this with small doses of sodium salicylate associated with sodium benzoate or Carlsbad salts, and "Harlem oil."

3. **Staining Tissues and Bacteria to Increase Effect of Chemical Rays.**—Odier has become convinced that the chemical rays

penetrate into and affect living tissues and bacteria in a different degree according to their color. The blood protects the tissues from their action and has to be expelled from the part before light treatment is effectual—this is not due to the composition of the blood but to its red color. If the blood were blue the tissues would be unprotected and the light rays would have intense penetrating power. He has found from his research that a combination of 1 per cent. methylene blue, gentian violet and thionin stains electively the protoplasm, nuclei and chromatin of living cells. They take up the stain better when a small percentage of cocain is added as it renders the cells more tolerant of the stains. He also heats the liquid always to 35 or 38 C. Tests of the chemical rays directed on tissues thus previously stained show that their penetrating power is immeasurably enhanced. Photographic plates are affected in twenty seconds through the abdominal wall of dogs and in one minute through the skull of a cat. [The principle seems to be similar to that recently promulgated by Dreyer and mentioned editorially in THE JOURNAL of February 13.—ED.] Odier has applied these premises in therapeutics, and reports 3 cases of erysipelas and several of furunculosis treated according to them. The results were so striking that before waiting for further confirmation he thinks he is justified in calling the attention of the profession to them. He cured the erysipelas by painting the lesions with a mixture of gentian violet and methylene blue (the true methylene blue, a tetramethylated chlorid of thionin), exposing them afterward for fifteen to twenty minutes to the light of an arc lamp. A large furuncle on the back of a dog was cured by three exposures for thirty minutes to the arc light after injecting into the lesion .5 c.c. of warm artificial serum containing 1 per cent. methylene blue and the same amount of cocain. Furuncles on the back of the neck rapidly healed when painted with a mixture of gentian violet and methylene blue, and then exposed to ordinary daylight. He describes his method of expelling the blood from the part to be treated, with one or two ligatures or by compression with a metal ring or rings. Addition of even a small amount of methylene blue to a culture of the diphtheria or tubercle bacilli or certain kinds of streptococci, augments the bactericidal power of the light to a marked degree.

Archiv f. Verdauungs-Krankheiten (Boas'), Berlin.

Last indexed page 66.

6 (IX, No. 6.) *Is the Evacuation of the Stomach Dependent on the Amount of Acid Produced? E. Meyer.—Ist die Entleerung des Magens abhängig von dem Grad der Säurebildung?
7 *Absorption of Iodin and Value of Penzoldt-Faber Test of Gastric Motor Function. Z. Inouye.—Ueber die Resorption von Iod und die Brauchbarkeit der P.-F.'schen Probe zur Bestimmung der Motilität des Magens.
8 *Splashing Sound in Digestive Tract. Gockel.—Zur Kenntnis des Plätschergeräusches für die Diagnose von Stenosen im Magen-Darm-Traktus und der sogen. perkussorischen Transsonanz.
9 *Zur Frage der quantitativen Pepsin-Bestimmung nach Mette (Modifikation Nirenstein-Schiff). J. Kaufmann (New York).
10 Ueber Kompressions-Stenose des Oesophagus, verursacht durch ein Aneurysma der Aorta descendens. W. Plitek.
11 Bemerkungen zu: van Spanje, Das Manometer bei der Capacitäts-Bestimmung des Magens (of stomach). G. Kelling.

6. Emptying of Stomach in Relation to Acid Formation.—Meyer had occasion to study a number of healthy subjects on whom lavage of the stomach was systematically performed for other purposes. He could not detect any connection between the emptying of the stomach and the normal, subnormal or hypernormal secretion of acid.

7. Absorption of Iodin from the Stomach.—Inouye's experimental tests showed that iodin may be absorbed from the stomach in dogs and cats, but not in man, rabbits or guinea-pigs. The iodin reaction appearing in the saliva indicates that the stomach content has been passed far along into the small intestine in man. In rabbits the reaction could be obtained in five minutes at a distance of 40 to 60 cm. in the small intestine, before it could be detected in the saliva. The results of the tests in rabbits coincided with those observed in man. The iodin reaction is retarded in both when the stomach contains food. As a whole the findings indicate that potassium iodid passes rapidly along into the intestines in normal conditions, and consequently the Penzoldt-Faber test—the time of the first appearance of the iodin reaction in the saliva—may be regarded as a valuable indication of the gastric motor functioning. The iodin salts are gradually decomposed by hydrochloric acid, but the proportion in the normal gastric juice is too small to produce any appreciable effect in less than an hour.

8. Diagnostic Significance of Splashing Sound.—Gockel relates the particulars of 7 cases of cancer of the stomach in which the diagnosis was suggested by a splashing sound at the first examination (the stomach not empty), and only perceptible with the stethoscope. Other symptoms of a cancer were lacking in some. The discovery of the splashing sound was a warning to repeat the examination several times, on the fasting stomach. In one case this symptom, with stagnation, lack of HCl, lactic acid after oatmeal gruel taken after thorough lavage of the stomach, compelled the diagnosis of cancer of the stomach. The patient refused the advised operative intervention. A palpable tumor did not develop until six and a half months later, when the operation revealed an extensive carcinoma at the pylorus with numerous metastases in the glands. In 2 other cases, after evacuation of the stomach and palpating with the patient reclining first on one side and then on the other, the presence of a tumor was discovered in addition to the stagnation and splashing sound. By this change of position it may be possible to palpate a tumor, which in the dorsal decubitus and in narcosis is inaccessible to palpation. In another case the presence of the splashing sound, the stomach fasting, with other symptoms, enabled the diagnosis of a stagnation insufficiency of the intestine to be established and the carcinomatous stenosis to be located at the ileocecal valve. Another case simulated spastic obstipation, but the stenosis near the cecum was finally differentiated by the absence of colic suggesting appendicitis, and the few or no disturbances accompanying the daily stools, while retention of stools induced pains in the lower half of the abdomen, with occasional vomiting. Further evidence of stenosis was afforded by the alternate softness and distension of the abdomen, the discovery once of a rigid loop in the ileocecal region, and the splashing sound, the stomach fasting, after ineffectual "expression" of the stomach. The assumption of a circular carcinoma in this case was based on the age of the patient—54—the absence of any symptoms of inflammation at the time or previously, and the lack of any palpable tumor. He emphasizes the importance of the splashing sound for those cases in which there are no other symptoms indicating stagnation in the gastro-intestinal tract. Its discovery once should compel further and repeated investigation, the stomach empty. If the splashing sound be constantly present, the stomach empty, stenosis of the stomach may be excluded, and the diagnosis of stagnation insufficiency in the intestines be assumed as probable or certain. If the splashing sound can not be detected by succussion, palpato-percussion or change of posture, auscultation of the abdomen with the stethoscope is still liable to reveal it. When detected it should suggest the possibility always of stagnation insufficiency of a malignant or benign nature in the gastro-intestinal canal. The typical sound resembles that made by shaking a bladder or bottle half filled with air and half with fluid. In his cases described, some of which had been long under observation, the first appearance of the splashing sound after a period of obscure symptoms which had suggested the diagnosis of stenosis, was the first positive sign that justified operative intervention. The location of the sound was the guide to the seat of the lesion in some cases.

9. Mette's Quantitative Pepsin Test.—Kaufmann tabulates the particulars of 72 cases of various affections in which comparative tests of the pepsin were made by the modified Mette test and the biuret test. He thinks that the values expressed in figures are much more convenient for purposes of comparison than the tints of the biuret test. The values found with both tests ran exactly parallel.

Berliner klinische Wochenschrift.

12 (XLI, No. 1.) *Actinomycose oder Osteomyelitis? E. von Bergmann.
13 Formation of Sugar from Albumin in Diabetes. F. Kraus.—Ueber die Frage der Zuckerbildung aus Eiweiss im diabetischen Organismus.

14 *Therapeutische Beobachtungen. J. Sigel.
15 (No. 2.) Effects of Drinking 25 c.c. of Hydrochloric Acid. H. Strauss.—Ueber röhrenförmige *Ausstossung der Speiseröhrenschleimhaut* und stenosirende Pylorus-Hypertrophie nach Salzsäurevergiftung.
16 *Outlining the Heart. F. Rosenfeld.—Ueber die Methoden zur Grenzbestimmung des Herzens.
17 Ueber primäre Darm- oder Gaumen-Tuberculose (of intestines or palate). S. Ito. Two cases of each.
18 *Painful Knee Affections. A. Hoffa (Berlin).—Zur Pathologie und Therapie der Kniegelenkserkrankungen. (Commenced in No. 1.)
19 (No. 3.) Experimentell-Untersuchungen über die innerlichen Darreichung eines Tubercular-Antitoxins. F. Figari (Genoa).
20 *Gout. Falkenstein.—Ueber das Wesen der Gicht und ihre Behandlung.
21 Dystrophia muscularis progressiva bei Mutter und Kind (in mother and child). M. Brasch (Berlin).
22 (No. 4.) Ueber aktive Immunisirung von Menschen gegen den Typhus-Bacillus. K. Shiga.
23 *Syphilis und Tabes. W. Erb (Heidelberg). (Commenced in No. 1.)
24 *Zur Aetiologie und Therapie der Tabes, speciell ihr Verhältniss zur Syphilis. F. Lesser (Berlin).
25 *Bullet Wounds of Pancreas. M. Borchardt (Berlin).—Schussverletzung des Pankreas und acute hämorrhagische Pankreatitis. (Commenced in No. 3.)
26 *Origin of Tuberculosis in Man and Animals. E. von Behring.—Leitsätze betreffend die Phthiseogenese beim Menschen und bei Thieren.

12. **Actinomycosis or Osteomyelitis?**—Bergmann describes the case of a robust man of 29 who had been kicked in the knee by a horse five years before. The gaping wound did not heal, and the bottom showed at first a dirty greenish-yellow tint. Under bichlorid dressings the wound healed, but a swelling in the parts persisted, and numbness at first was followed by pains. He was treated on the assumption of osteomyelitis for a year or two, until Bergmann noticed that the affection had commenced after the usual age limit for osteomyelitis had been passed; also its gradual, chronic course, the relative good health otherwise of the patient for four years, and the afebrile development of redness of the skin and fluctuation in the swelling in the fifth year. He then diagnosed actinomycosis, and soon cured the patient by appropriate excision and curetting. Staphylococci were found with actinomyces in the lesion, and the former were probably responsible for the enlargement of the inguinal lymphatics observed at the time and spontaneously subsiding after removal of the focus below.

14. **Therapeutic Notes.**—Sigel publishes the results of years of careful tests and experiences with various new therapeutic preparations.

16. **Outlining the Heart.**—Rosenfeld has been studying the various methods in vogue *for determining the outlines of the heart.* His research was conducted at von Leyden's clinic and on the cadaver outside. He thinks Smith's method is liable to induce error. The technic which he regards as most reliable is light finger percussion, radiating from the area of greatest dullness in all diameters. The absolute limits are then determined by percussion, noting the sensation of resistance to the touch, percussion proceeding likewise in this case from the center of dullness to each side. Better results are obtained thus than by commencing where the dullness is less marked. Normally, the right limit of the heart extends about 1 cm. beyond the right margin of the sternum, but this may vary by .5 to 1 cm. On the left, the heart limit is about .5 cm. inside the nipple line. For this palpatory percussion he prefers the old Skoda hammer or the Seitz and Struck plessimeter (4.5 cm. by 1.5 cm.), which is more reliable than the flat plessimeters. He places the third phalanx of the extended finger on the head of the hammer and percusses thus, or the finger can be used instead of the plessimeter. The sensation of resistance thus obtained enables the outlines of the heart to be determined with surprising accuracy. The findings are not confused by the heart sounds, etc., as by other technics.

18. **Treatment of Puzzling Knee Affections.**—The cases to which Hoffa refers are those which have hitherto been classed as neuralgia of the knee. He has found that in many cases the apparent neuralgia is due to atrophy of the quadriceps, to internal derangement of the joint or to a lipoma or free body in it. Treatment depends on correct differentiation, and the results are most gratifying. The quadriceps exerts traction on the capsule, and if this muscle is atrophied the capsule lies loose, and is liable to get between the patella and the condyle of the femur or between the condyles of the tibia and femur. This pressure on the capsule causes the pain, but six weeks of treatment by massage and exercises of the atrophied quadriceps will completely cure the trouble. Treatment addressed to the joint itself, immobilization, baths, etc., only fosters the evil by increasing the atrophy of the muscle. The second cause of the so-called knee neuralgia is the laceration or displacement of a meniscus, or of both, from rupture of the attaching ligaments. The most frequent form is the detachment of the anterior insertion of the internal meniscus from the tibia. The trauma causing the rupture may have been trivial, but the joint swells afterward and is painful; the subject walks on the toes of the foot. Under repose, compresses and massage, the soft, elastic swelling subsides, and the joint returns apparently to normal. Now and then, however, sudden attacks of pain and interference with walking are noted after climbing stairs or other quick movement. The pain is sometimes sudden and intense. The joint appears normal on inspection, but palpation of the space between the condyles of the femur and of the tibia is extremely painful. Local sensitiveness at this point is characteristic and differentiates the trouble, although the displaced meniscus may sometimes also be palpated when the knee is stretched, disappearing again as it is flexed. In recent cases it may be possible to reduce the displaced meniscus, but if conservative treatment is not effectual, it should either be sutured in its place or removed by a "fingerless" operation. The third form of these affections is the presence of an inflammatory fibrous hyperplasia of the fat tissue normally to be found under and on both sides of the patellar ligament. This excess of fat tissue gets caught between the working parts of the joint and causes intense pain. The joint is swollen, and below and on both sides of the patella there is a pseudo-fluctuating doughy swelling lifting up the patellar ligament. The proliferating masses should be removed after failure of conservative measures. Sometimes two or more of the above causes combine to make trouble. Patients belonging to these categories frequently go for years from one physician and watering place to another, while a prompt cure may be realized by the interventions described.

20. **Essence and Treatment of Gout.**—Falkenstein presents arguments to sustain the view that gout originates in the stomach, and is primarily due to some disturbance in the gastric glands which secrete hydrochloric acid. He is a victim himself, and states that for more than two years he has been taking daily, without intermission, forty to sixty drops of pure hydrochloric acid, that is, 3 to 5 gm., in a glass or two of carbonated water. His dyspepsia has completely subsided, and the old attacks of gout have never returned, only an occasional mild pain reminding him of the existence of his gout which had previously tormented him for twenty-three years. His personal experience has been corroborated by that of a large number of patients treated in the same way. He cites a number of facts published of late years which support this theory, and explains the rarity of gout in children and in warm climates by the simpler food, the constant exercise of children and elimination by perspiration in the tropics. He thinks that colchicin is harmful, as it arrests the commencing dissolving process and restores the *status quo ante*, thus aborting an existing attack, but providing aggravated conditions for the following ones. Alkalines are also distinctly injurious, he believes.

23. **Syphilis and Tabes.**—When the connection between syphilis and tabes was first suggested, Erb was skeptical, but he has been industriously collecting statistics since, and now announces that the percentage in his latest series of 400 cases proves to be the same as in the earlier ones. These statistics include only educated men above the middle class, as he considers this material the only one reliable for such studies. Out of a total of 1100 cases of tabes, he found 89.45 per cent. with an unmistakable history of syphilis or

chancre, and in the remainder, syphilitic antecedents were probable in all but 2.8 per cent. He thinks that in this small minority, although the syphilitic origin is non-proven, yet that it is in the highest degree probable. His extensive article analyzes his experience with venereal disease in general. He has made a practice of examining for venereal disease all his male patients over 25, and has found that out of 600 educated men of the upper classes, 43.3 per cent. were absolutely free from venereal disease of any kind. Only 50 per cent. of the 600 had had gonorrhea. He found among 50 tabetic subjects that 90 per cent. had had gonorrhea, including 5 with no manifest evidences of other venereal disease. In conclusion, he critically reviews the various publications on the subject of syphilis and tabes in the last few years. The rarity of tabes in uncivilized countries may be due to its non-recognition. The question is to decide what factors intervene in these places to prevent the development of tabes from syphilis. No land has yet been found where tabes prevails and syphilis is unknown. In regard to treatment, his experience includes multitudes of cases of tabes practically cured by energetic specific treatment with Hg and iodin, but in a large number of others the progress of the tabes was not arrested by treatment.

24. **Etiology and Treatment of Tabes.**—Lesser pleads for more careful postmortem examination of tabetics. He classifies the lesions of syphilis as papulous or secondary; gummatous or tertiary; interstitial or quartan. The third phase is frequently skipped. He regards tabes as primarily an interstitial process with secondary ascending degeneration of the nerve fibers, the whole to be classed as one of the quartan manifestations of syphilis. The papulous stage responds to mercury; the gummatous stage to iodin, but the interstitial stage is refractory to both these drugs. In 96 cases of tabes, he found an aneurism eighteen times, and cites this fact as the keystone of his argument. It establishes a parallel between the syphilitic interstitial inflammation leading to aneurism and the same process in another organ entailing tabes, both quartan manifestations of syphilis, and both most liable to develop in subjects who have not presented tertiary manifestations. Tabes is most rare in countries where the tertiary manifestations are most common and severe.

25. **Bullet Wounds of Pancreas.**—Borchardt's patient was dismissed cured thirteen weeks after a bullet wound of the tail of the pancreas with alarming hemorrhage from the lacerated splenic vessels. Fourteen other bullet wounds of the pancreas are on record, with only 4 recoveries. His is the only case of recovery after injury of the splenic vessels. He mentions that he always makes a practice of examining the pancreas whenever the abdominal cavity is opened on account of a bullet wound. He cites the tragic fate of President McKinley as an illustration of the ease with which such an injury may be overlooked. Wounds in the pancreas tissue bleed very little, and the hemorrhage can be readily arrested with tampons. Bleeding from the injured vessels of the hepatogastric ligament is alarming, but can soon be controlled by a few ligatures. In case of a bleeding wound in the liver, he has found it possible to arrest the hemorrhage by pressing iodoform gauze on the bleeding surface, fastening it with a few deep stitches. In order to prevent the escape of pancreatic juice into the abdominal cavity, he thinks it is necessary to wall off the organ with tampons to promote formation of adhesions and divert harmful secretions outward. Suture of the wound alone is unreliable. In regard to acute hemorrhagic (not infectious) pancreatitis, he comments on its liability to recurrence. In case the general condition allows an operation, he would tampon the bursa omentalis through the gastrocolic ligament and introduce a second protecting tampon behind the omentum, colon and stomach, making an artificial anus in case of paralysis of the intestines. Intervention on the pancreas itself in the acute stage has always been followed by the death of the patient. The particulars of the 15 cases are appended.

26. **Origin and Prevention of Tuberculosis.**—Behring's new views on this subject were summarized in The Journal on page 994 of the last volume. He here recapitulates them in forty propositions. The campaign against tuberculosis based on these principles should aim to prevent ingestion of tubercle bacilli with the food, especially during early infancy, and at the same time supply tubercle-bacillus antibodies in the milk for the purpose of rendering harmless any tubercle bacilli that may be inhaled. The production of milk absolutely free from these bacilli will be possible if the immunization of cattle, according to the method he has devised, realizes present anticipations. To complete the immunizing treatment of infants with the antibodies, it may be possible to add to those already in the milk others derived from outside sources.

Centralblatt f. Bakteriologie, Etc.

Last indexed page 564.

27 (XXXIV, No. 8.) Relations of Lactic Acid Bacteria to Streptoccus Lanceolatus. Kruse.—Das Verhältniss der Milchsäurebakterien zum Strep. lanc. (Pneumoniecoccus, Enterococcus, etc.)

28 Adaptation of Bacteria to the Defensive Powers of the Infected Organism. P. Eisenberg (Cracow).—Ueber die Anpassung der Bakterien an die Abwehrkräfte des infizierten Organismus. 1. Pyocyaneus-Infektion, nebst Bemerkungen über die Serodiagnostik dieser Infektion; 2, Unempfindlichkeit der aus dem Organismus gezüchteten Typhus-Bazillen gegenüber der bakteriziden Wirkung menschlichen Serums.

29 *Intracellular Constituents of the Typhoid Bacillus. A. Macfadyen and S. Rowland. (Concluded.)

30 "Zum Streit um den Meningococcus." H. Albrecht and A. Ghon.

31 *The Turtle Bacillus. Its Cultivation, Biology and Pathogenicity. F. F. Friedmann.—Der Schildkrötenbacillus. seine Züchtung, Biologie und Pathogenität. (Concluded.)

32 Die Trypanosomen in der Menschen- und Thier-Pathologie, sowie vergleichende Trypanosomen-Untersuchungen. L. Rabinowitsch and W. Kempner.

33 Two Distomes from Canadian Uredela: 1, Monocaevum caryurum, and 2, Brachycoelium hospitale. J. Stafford (Montreal).

34 Inhibiting Action of Glycogen on Hemolytic Processes. Wendelstadt.—Ueber die Einwirkung von Glykogen auf hämolytische Vorgänge.

35 Ueber die Bindung des Bakterio-Hämolysins an die rothen Blutkörperchen (red corpuscles). R. Volk.

36 *Zur Lehre von den antitoxischen Seris. F. Wechsberg (Vienna).

29. **Intracellular Constituents of Typhoid Bacillus.**—Macfadyen states that inoculation of animals with disintegrated bacilli is not accompanied by the usual local reaction, while absorption proceeds more rapidly. He has succeeded in producing an antityphoid serum which has both bactericidal and antitoxic power. His technic includes freezing the microorganisms to brittleness with liquid air and then grinding them. The apparatus is described with cuts. Experiments with his serum are now being conducted on the horse.

31. **Cultivation and Biology of the Turtle Bacillus.**—The tubercle bacillus derived from a turtle has proved very effective in Friedmann's hands as a means of immunization against human and bovine tuberculosis. His interesting results were reviewed in The Journal recently, page 136. He describes experiments with it here inoculated into other cold-blooded animals. It invariably induced a rapidly fatal tuberculosis in them, but in mammals it behaved differently.

36. **Antitoxic Serums.**—Wechsberg describes the aim of serum therapy as the production of serums as polyvalent as possible, for use against the various partial toxins of the disease germs. He warns that the results of tests on animals can not always be applied to man without reserve.

Centralblatt f. Chirurgie, Leipsic.

Last indexed page 134.

37 (XXX, No. 50.) *Treatment of Granulating Skin Wounds. H. Wagner (Breslau).—Behandlung von granulierenden Hautwunden.

38 (No. 51.) Die Versorgung des Appendix-Stumpfes. Riedel (Jena).

39 (No. 52.) *Adjustable Constricting Bandage. S. Spiegel.—Zur Technik der künstlichen Blutleere. Eine regulierbare Konstriktions-Binde.

40 (XXXI, No. 1.) *Zur intrakapsulären Prostata-Resektion bei Prostata-Hypertrophie. L. Rydygier.

41 *Behandlung der Humerus-Frakturen im Schwebestreckverband (Aequilibrier-Methode). Geissler.

42 (No. 2.) *Zur Therapie der kongenitalen Hüftverrenkung (dislocation of the hip joint). M. Reiner (Lorenz's clinic).

43 *Permeability of the Sutured Vas Deferens. H. Vulliet (Lausanne).—Ueber die Durchgängigkeit des nach Sektion oder Resektion genähten Vas deferens.

44 (No. 3.) *Sur Frage der Catgut-Sterilisation. Salkindsohn (Wilna).

45 *Zur Drainage des Herzbeutels (of pericardium). W. Mintz (Moscow).

46 Zur Paraffin-Nasen-Plastik. H. Eckstein (Berlin).

47 (No. 4.) Technische Beiträge zur Chirurgie der Bauchhöhle (of abdominal cavity). G. Kelling (Dresden).
48 Zur Technik der Resectio appendicis. A. Belz (Kharkov).

37. **Open Treatment of Granulating Wounds.**—Wagner wearied of the tedious healing of granulating wounds, especially when the pyocyaneus was once installed in them. He found that patients in private practice shrink from grafting operations. For these reasons he sought for a better method of treating surface wounds after granulation was once established than the usual interminable salve treatment. He thinks the application of salves induces secretions which in turn provide a fine nest for microbes. For several years he has been treating such wounds by leaving them open to the air when the surface was covered with healthy granulations. The secretion at once diminishes, the granulations shrivel under the influence of the air, and a pellicle soon forms over the surface. If there are microbes under this pellicle retention follows, but the drying up of the wound evidently is unfavorable to the proliferation of germs. When the surroundings of the wound are healthy a granulating wound as large as the palm of the hand has frequently healed over in eight or ten days under exposure to the air. In old leg ulcers healing is less rapid, but is still very satisfactory. He has frequently treated patients who presented two or more wounds, by exposing one to the air and applying salves to the other. In every instance the superiority of the former method was unmistakably apparent. The open treatment is peculiarly effective for wounds in which grafting has been applied without much success. The unhealed flaps should be removed, and then the epidermis soon spreads from the transplanted scraps until the entire surface is covered. He thinks that the air exerts a certain stimulus on the epithelium similar to that from ether spraying. The granulations as they shrivel become flatter, which also favors the growth of epidermis. The danger of infection from the air is not so great as was formerly assumed, and granulating surfaces are particularly resistant. In years of experience he has never known a single instance of harm done by infection in these cases. Of course, he is careful not to attempt this open treatment in close contact with erysipelas or other severe infection. Its special field is in home and private practice.

39. **Adjustable Constricting Bandage.**—Spiegel's instrument is a silk webbing to form the bandage. One end terminates in a slide catch its entire width. The other end of the webbing after passing around the limb is wound on a roller projecting horizontally above the clasp device. A thumbscrew turns the roller and tightens the band as desired, after it has been clasped around the limb. It has been found a great improvement over the ordinary constricting bandage in 50 operations at Mosetig's clinic. Two cuts are given to show the simple details of the apparatus.

40. **Intracapsular Resection of the Prostate.**—In order to proceed as cautiously and with as little traumatism as possible, Rydygier makes his incision along the raphe from the root of the scrotum to near the anus, but incises the capsule 1 to 2 cm. from the median line to avoid injury of the urethra. He carefully refrains from opening into the urethra or bladder, and proceeds to intracapsular resection. The whole intervention is thus comparatively inoffensive, and if there should be recurrence of trouble, the operation could be easily repeated. He urges early intervention, before the evil results of retention have been established.

41. **Balancing Suspension Treatment of Fractures of the Humerus.**—Geissler illustrates an apparatus with which he cured a supracondylar fracture of the humerus in a boy of 7 with perfect functional results. The arm was flexed and placed in a plaster cast extending from the fingers to the upper third of the upper arm. The arm was then raised by a rope, pulley and weight, the suspension being applied a little below the elbow. The cast thus formed a right angle and the weight of the forearm just balanced the traction of the body on the upper arm. In order to make this balance perfect a weight was fastened on the cast over the hand. The elbow was thus freed from all traction. The wide band by which the arm was suspended was of adhesive plaster and passed first around the elbow before the ends were united to form the sling. The plaster cast spread the traction over the entire surface of the arm within, while the elbow was free. The bag of sand which he used for the suspension weight weighed about 6 pounds.

42. **Treatment of Congenital Dislocation of the Hip-Joint.**—Reiner has found that Schlesinger's two-time maneuver has enlarged the age limits within which bloodless reduction of the dislocation is still possible. He has thus treated 10 cases, and the results have been extremely satisfactory, although the subjects were from 10 to 15 years old, and in 2 the displacement was bilateral. The maneuver only aims to prepare the parts for the operation proper. It consists in forcing the leg into the position where the head slips most readily into its proper place, and applying a plaster cast without attempting to force the head into place. The intervention is then completed as usual, after an interval of one or two weeks. He explains the mechanism as follows: The fixation in the position secured by the first maneuver presses the head against the isthmus in such a way that it gradually stretches the muscles, and thus is removed the greatest obstacle to the final reposition of the head when the intervention is completed. Certain features of the after-treatment are important. The main point is to retain the contracture attained, leaving it to correct itself spontaneously. The active and passive exercises during the day are replaced at night by restoring the joint to the primary position. This is accomplished by a plaster bed made by molding the plaster over the child as he lies on his belly, the cast thus made including the pelvis and reaching to the top of the thorax, holding the thigh abducted at a right angle, with or without extension by means of a pad under the knee. The possibility of reproducing this primary position with ease is the best test of the perfection of the reposition. No joint can be considered faultlessly replaced which although it may allow the reproduction of the primary position yet assumes at the same time slight flexion.

43. **Permeability of Vas Deferens After Suture.**—Vulliet presents an illustration of a vas deferens in a dog sutured after resection. The cut shows the complete permeability of the vas, the epithelial lining apparently normal. He obtained this result in 3 out of 4 dogs treated by section or resection and suture of the vas deferens. The lumen is very small, but the walls are comparatively thick and allow a suture to be taken without penetrating into the lumen. He is confident that the probabilities in favor of the retained permeability of the vas in man are still more promising.

44. **Sterilization of Catgut.**—Salkindsohn remarks that catgut sterilized by Bloch's method of soaking it in a solution of 1 part iodin and 10 parts potassium iodid in 100 parts water, loses its firmness in time. Otherwise it complies with all the requirements for a perfect suture material. He thinks that this one remaining objection can be obviated by using a solution of 1 part tincture of iodin in 15 parts spirit. vini (50 per cent). This is equivalent to 2/3 per cent. iodin puri in 50 per cent. spirit. vini. The catgut is placed in this solution for a week, after which it is ready for use and can be kept indefinitely in the fluid. Thus prepared it has all the good qualities of iodized catgut, while it has the superior advantage of being durable. Catgut thus prepared a year ago is still as perfect as when first made, and he has used it for ligatures, sutures, herniotomies, etc., without finding that its age had detracted in the least from its fine qualities.

45. **Drainage of Pericardium.**—Mintz recently cured a case of suppurative pericarditis by establishing free drainage. He reached the pericardium through an incision about 7 cm. long along the lower margin of the seventh costal cartilage. The pericardium was incised over a sound inserted through an opening above, the fifth rib having been previously resected in a vain attempt to evacuate the pus. Since then he has been testing the procedure on cadavers of subjects from 9 to 70 years of age, and found that it was possible in every case to open the pericardium without injury to the pleura or peritoneum. The abdominal muscles are detached from the

rear of the left, seventh costal cartilage, reached through an oblique incision along the lower margin of the cartilage. The latter is then divided at the top and bottom of the incision, and turned back out of the way with its soft parts, including the attachment of the diaphragm. The pericardium then becomes apparent in the upper end of the wound and can be readily opened. In his experiments on the cadaver, pericardial fluid always poured out when it was incised, which demonstrates that even a small amount of exudation can be easily drained away by this technic.

Deutsche medicinische Wochenschrift, Berlin and Leipsic.

49 (XXX, No. 4.) *Effect of Mountain and Sea Climate on Man. A. Loewy (Berlin).—Die Wirkung des Höhen- und Seeklimas auf den Menschen.
50 *Bemerkungen zur Paranoia-Frage. E. Schultze. (Commenced in No. 3.)
51 *Fall von Staphylokokken-Sepsis. O. Niedner.
52 Ueber congenitale Cysten-Nieren (cystic kidneys). O. Busse.
53 Ophthalmia neonatorum und der Gonokokkus. T. Axenfeld.
54 *Treatment and Prevention of Hay Fever. R. Mohr (Mügeln bei Pirna).—Zur Behandlung bezw. Verhütung des Heufiebers.
55 Ueber Euguformum solubile. M. Joseph.
56 *Development of Surgery During the Nineteenth Century and Its Relation to the Medical Curriculum. V. Czerny (Heidelberg).—Ueber die Entwicklung der Chirurgie, etc.
57 Tribute to A. Weismann on His Seventieth Birthday.
58 In Memoriam. F. Jolly.
59 (No. 5.) *Die Ubiquität der Tuberkel-Bazillen und die Disposition zur Phthise. C. Flügge.
60 *Zur Frage der aktiven Immunisierung gegen Tuberkulose. F. F. Friedmann (Berlin).
61 Die Prognose der progressiven Paralyse. R. Gaupp (Heidelberg). (Commenced in No. 4.)
62 *Podophyllin bei der Behandlung Ankylostomiasis. Neumann.
63 Ue[illegible] Stand der Lehre von der Eklampsie General review. (Commenced in No. 4.)
64 Tribute to E. Neumann on His Seventieth Birthday.

49. Mountain and Sea Climate.—Loewy has been conducting comparative research on the effect of mountain and sea climate. He finds that the tests of the electrical conditions give identical results in each, and the stimulating effects on the metabolism seem to be identical in each. The rarity of the air he believes to be a minor factor in the effect of altitude, which is mainly the result of the purity of the air, its constant motion and the abrupt changes from warmth to cold, all of which may be found at the seashore. The therapeutic indications for sea or mountain climate should be well weighed. Patients already overexcited or overstimulated in any way should not be sent to the mountains or seashore. They are indicated only for cases with reserve energy, not for those in which the store of energy has to be carefully guarded. Further research is needed to determine whether the sea climate may not have the same action on the composition of the blood which is noted in the mountains. He thinks it possible that the sea climate may share this property.

50. Paranoia.—Schultze regards the paranoiac as irresponsible, even in the comparatively early stages of his disease. He is no longer master of himself, but merely the unwilling victim of his morbidly altered feelings.

51. Staphylococcus Sepsis.—A workman, 38 years old, exhibited a clinical picture which simulated that of typhoid. This presumptive diagnosis was sustained by the fact that two of his mates presented symptoms of unmistakable typhoid at about the same time. Delirium developed the thirteenth day, but all attempts to cultivate bacteria from the blood were negative. although pneumococci were found in the sputa. The fifteenth day the parotid glands swelled, and puncture revealed pure cultures of staphylococci. A similar swelling developed at the right trochanter and another at the right elbow. Death followed two days later. The patient had fallen from a ladder four weeks before his illness, striking on the right side. Slight pains were noticed in the right sacral region and right leg, and becoming worse, a physician was consulted two weeks later. He ordered dry cupping, but the patient had the parts massaged instead. The pains increased thereafter, and the symptoms simulating typhoid fever developed. The resemblance of the clinical course to that of typhoid was explained by the lesions found in the intestinal lymphatic system at the necropsy. They were almost exactly like those encountered in typhoid. The traumatism had undoubtedly induced extravasation in the right gluteus maximus. Although the injury to the skin rapidly healed, it had allowed the entrance of staphylococci and an abscess formed, too deep to be discovered by palpation, and the massage of the parts evidently drove the infectious material into the circulation, resulting in rapidly fatal general infection. The temperature showed a wider daily range than is usual in typhoid.

54. Prevention of Hay Fever.—Mohr is an enthusiastic believer in Dunbar's pollen theory of hay fever. He has been a sufferer himself for many years, and was able to confirm in his own experience all of Dunbar's assertions in regard to the cause and antipollen treatment of hay fever. Mohr has gone further, and devised a protecting device with which he has successfully warded off the irritating pollen dust, both in himself and in all others who have used the device. It is a modification of the Schmidthuisen "nostril lifter" (Nasenflügelheber), but is completed by a filtering device. It is worn inside the nose, and causes no more discomfort than the wearing of spectacles. He thinks that it has solved the problem, not only of absolute protection against hay fever, but also for trades in which there is danger of inhalation of stone dust, etc. By wearing the device a few days the sensitiveness of the mucosa was so much reduced that he could go without it for a time without inducing the previously inevitable attack of hay fever.

56. Surgery and the Medical Curriculum.—Czerny urges the appointment of school inspectors for the high schools. The students should be examined at the beginning and close of each school year to determine the influence of the sedentary life, etc. He traces the development of surgery, and shows how the field has broadened so that the training is an ever-increasing task. In order to have the student's best efforts, his heart should be in his life work, and he should select that branch for which he has an affinity and not be guided by chance. With the present modes of education, there is little chance for the students to discover these affinities, as they are tied to their books. He would restrict the number of working hours in the high schools and colleges, and give the students more time for individual initiative. They would then be able to discover their true bent, and when they reach the medical college would know the line of work in which they were most likely to excel, and would approach it as artists, not as mere breadwinners. He remarks that the world has never seen such an amount of original thinking and artistic production as in the days of ancient Greece, when the school was essentially for the development of physical strength and beauty and the minds were allowed to develop untrammeled. He thinks that twenty-six to twenty-eight hours of study during the week is the maximum that should be allowed from the standpoint of hygiene.

59. Ubiquity of Tubercle Bacilli and Disposition to Phthisis.—[Flügge is director of the Institute of Hygiene at Breslau, and it is on his announcements of the danger of infection from the droplets disseminated in coughing and speaking that some of the most important prophylactic measures are based.] He now presents arguments to prove that the tubercle bacillus is by no means ubiquitous; that it is seldom found in the dust of the street or in houses, and relates experiments and tests by various investigators to support this view. Among the latest is Praussnitz' examination of the dust from certain railway cars used exclusively for transporting tuberculous subjects. In all his tests he found tubercle bacilli only twice, and then in the sweepings. The bacilli are found only in the close proximity of tuberculous subjects—recognized or unrecognized as such—and a large number of the germs are necessary for infection of others. One investigator found it impossible to infect guinea-pigs with 40 bacilli, but they invariably contracted the infection when twice or thrice this number was used. Paper cuspidors and handkerchiefs, that can be burned, are advisable for the use of consumptives. Scraps of sputum material are liable to cling to the fingers and to the clothing, especially around the entrances to the pockets. The fingers should be frequently and thoroughly cleansed with soap and water, and the outer clothing brushed off once a month with 10 per 1,000 of bichlorid or taken to a formaldehyd disinfecting station. When the consumptive coughs he should go apart from other persons or turn his head away or hold a handkerchief before his mouth. The distance between heads in workshops should be at least one meter, thirty-nine inches, and wherever practicable, there should be partitions between employes engaged in sedentary work. In the bedroom a screen of smooth material in front of the bed is advisable if the consumptive can not have a room to himself. During the day the family should not crowd around him. During exacerbations it may be advisable to remove the consumptive to some sanitarium or convalescent home. Every child knows that phthisis is contagious, he remarks, but the measures by which the consumptive is perfectly able to protect others against infection from him are so simple and rational that their universal adoption is not an idle dream, while it would certainly be followed by a progressively diminishing number of cases of infection. He thinks that the necessity for sunny and well-ventilated dwellings is overestimated from this point of view. Sunlight will destroy the bacilli, but the consumptive is scarcely liable to spread his sputum out in a thin layer on the floor in the direct path of sunshine, and yet these are the conditions necessary for the destruction of the germs by sunlight. Particularly thorough ventilation is actually harmful as tending to disseminate the germs which otherwise are to be found only in the immediate vicinity of the subject. In regard to the predisposition to tuberculosis, he thinks our present knowledge is too limited to formulate any conclusions in regard to it. Behring's recent announcements concerning the danger of infection in the first weeks of life, summarized in THE JOURNAL, xli, page 994, are not accepted by Flügge, who points out that all children now, with the rarest exceptions, are either nursed or fed with boiled milk during early infancy. The danger from bacilli in butter is more patent, but by the time children are given butter they have outgrown the unprotected condition of early infancy on which Behring lays so much stress. Other arguments which Flügge advances against his theories are that the frequency of tuberculous infection increases with the age; that the mortality from phthisis is much greater among men than among women after the age of 20; the prevalence of phthisis among those employed in certain industries; the observations of phthisis unmistakably acquired late in life, and of cases among persons who were never fed on cow's milk during infancy; also the fact that in regions where infants are breast fed the number of cases of tuberculosis is not materially lower than in other regions where artificial feeding is almost universal. As a concluding argument, he refers to the prevalence of tuberculosis in countries where there are no cattle or where milk is not used as an article of food to any extent. Behring overlooks the fact that infantile gastrointestinal disturbances following the use of milk are restricted to the three summer months and parallel the excessive heat. In countries in which the summers are cool they do not occur at all. During the nine other months of the year there is not the same difficulty in keeping the milk cool and in good condition. Physicians most experienced in children's diseases have never observed any injurious effects on normal children from milk briefly boiled. The German law forbids under penalty the addition of any chemical to milk, and to repeal this law in order to introduce Behring's method of formalinizing the milk seems unjustified at present. In regard to sterilization of butter, Flügge's research has shown that pasteurization of the cream would not interfere in any way with the production of butter, in case such a measure were deemed advisable.

60. **Active Immunization Against Tuberculosis.**—Friedmann's successful immunization of animals against tuberculosis has already been mentioned in these columns, page 136. He used for the purpose bacilli cultivated from the turtle, and thinks that these cultures combine all the requisites needed for successful immunization of mammals, as he enumerates in detail. He compares his technic and results with those published recently by Moeller in the *Ztft. f. Tub. und Heilstättenwesen*, V. 3. The latter used bacilli derived likewise from a cold-blooded animal, the blind-worm. The bacilli derived from this reptile, however, do not possess all the attributes which Friedmann regards as indispensable. Moeller experimented on himself, making three intravenous injections of living bacilli from the blind-worm cultures. After this preliminary treatment, he inoculated himself with 1/50 of a loop of human bacilli, but Friedmann does not regard these subsequent tests as conclusive, owing to the early death of the control guinea-pigs. [Friedmann's turtle experiments have attracted wide attention in other countries, although the German word for his culture—"Schildkrötentuberkelbazillenstamm"—has caused some amusement.—ED.]

62. **Podophyllin in Ankylostomiasis.**—Neumann reports experiences and experiments which have established that podophyllin has a specific action on the epithelium of the intestines which interferes with the parasites' clinging to it. They are thus easily dislodged by male fern after administration of podophyllin or the latter alone may be sufficient to dislodge and expel them. Its action is much more pronounced than that of calomel, while it is a much safer drug than the latter for this purpose.

Gazzetta degli Ospedali, Milan.

Last indexed page 496.

65 (XXV, No. 1.) Intossicazione idatica mortale per colpa di cisti del fegato e versamento nel peritoneo (rupture of hydatid cyst). A. Salomoni and La Spada (Messina).
66 Blood Count in Typhoid. A. Germani.—Contributo alla diagnosi clinica della febbre tifoida.
67 Pain at Appendix Early Sign of Pneumonia in Children. A. Prandi.—Il dolore appendicolare nella polmonite dei bambini.
68 L'ipersalivazione negli stenotici nasali. L. Rugani.
69 The Hand in Industrial Insurance. C. Momo.—Alcune considerazioni intorno alla mano nella legge degli infortuni sul lavoro.

Siglo Medico, Madrid.

Last indexed XL, page 67.

70 (Nos. 2556 to 2560.) *Algo sobre pellagra en Espana.* A. P. Sara.
71 (No. 2561.) *Lead Pipes for Drinking Water. E. Sanchez y Rubio.—Las tuberias de plomo metalico en la distribucion de las aguas potables.

71. **Lead Pipes and Drinking Water.**—Sanchez y Rubio asserts that the notion that water distributed through lead pipes is harmful is based on an unreasonable prejudice. In an address at the Egyptian Medical Congress he stated that a large part of the drinking water of Madrid is distributed by means of lead pipes, and yet tests conducted through two years have failed to disclose any traces of lead in the water drawn from them. No diseases nor affections have been known that could be attributed to lead poisoning.

British Medical Journal, London.

February 6.

72 The Progress of Surgery. Howard Marsh.
73 Work and Purpose of the Royal Army Medical College. William Taylor.
74 *Aseptic Surgery in Theory and Practice. Charles Barrett Lockwood.
75 *Some Practical Points Associated with Appendicitis. W. D. Spanton.
76 *Notes on an Ineffectual Treatment of Cancer; Being a Record of Three Cases Injected with Dr. Otto Schmidt's Serum. D'Arcy Power.
77 Acute Septic Colitis Due to Milk Poisoning. G. F. Vincent.
78 *Note on the Nature of the Parasitic Bodies Found in Tropical Splenomegaly. W. B. Leishman.

74. **Aseptic Surgery.**—The difficulties and inconsistencies of aseptic surgery as it is practiced are shown by Lockwood, who can not see how we are ever to dispense with chemical antisepsis. No condition or apparatus can ensure an absolutely aseptic atmosphere, but he thinks it irrational to make no attempt to rid the air of bacteria. The better the ideal the better the success. Different kinds of infection ought to be fought with different kinds of chemicals used in different ways. Experience has a great deal to teach in this respect. In hospital work each surgeon should have his own wards, theaters, instruments, nurses and assistants, and the septic and aseptic wards should be separate. More isolation wards are required. The present system of assistants necessarily increases the amount of sepsis, but he says there is some difficulty in saying which is best, a system which sends out into the world numbers

of men well educated as to the requirements of aseptic surgery or one which helps one surgeon to obtain the minimum percentage of suppuration. The answer, he thinks, is clear; the greatest good to the greatest number must prevail. Each unnecessary pair of hands should be eliminated. The surgeon should alone handle the ligatures, instruments, sutures and dressings. The single assistant has little to do, and his fingers ought to be kept out of the wound. A garrulous assistant is particularly bad. The instruments should be few and simple and the material uniform; a diversity of material multiplies the chances of infection.

75. **Appendicitis.**—Spanton reports a number of cases illustrating some of the difficulties of diagnosis. The more he sees of appendicitis the more he is convinced that it is safer to operate too soon than to delay too long. No time should be lost when the symptoms of general peritonitis appear. When the appendix can be safely removed, he always removes it, but in all instances free drainage may stave off imminent death when it is not possible to do more.

76. **Cancer.**—Power has tried Otto Schmidt's serum derived from a parasite cultivated from cancer growths, in the treatment of several cases of tumor with unsatisfactory results. He finds a reaction after the injection and an inflammation in the growths, but he can not satisfy himself that the serum acted by selection on malignant tissues only. It seemed only to intensify the pre-existing inflammation. It is painful, and the disease progresses, even to a fatal issue, while the injections are being given. He can say nothing specially favorable of the method either from a prophylactic, diagnostic or curative standpoint. Still further observations may be desirable as his tests of three cases were somewhat limited. One was not suffering from cancer, but from a non-malignant growth.

78. **Leishman-Donovan Bodies.**—Leishman points out the close resemblance of these bodies to some described by Dr J. H. Wright (*Jour. Med. Research*, December) from a case of tropical ulcer. Wright considered these parasitic, and proposed a new genus and species under the name of *Helcosoma tropicum.* Major Ronald Ross frequently has found in the pus of Delhi boils large numbers of a flagellated organism, the *Cercomonas hominis.* Leishman says that it is just possible that Wright's parasites may be altered cercomonads. The frequency of Delhi sores in India offers ample means for confirming Wright's observations. Leishman thinks that Laveran's view—that these parasites are a new species of *Piroplasma*—seems to be contraindicated.

The Lancet, London.

February 6.

79 *Physiologic Action and Antidotes of Snake Venoms with a Practical Method of Treatment of Snake Bites. Leonard Rogers.
80 Medical Examinations for Life Assurance. Dyce Duckworth.
81 The Midwives' Act in Its Bearing on the Work of General Practitioners. Percy Rose.
82 *Surgical Treatment of Perigastric Adhesions. E. Percy Paton.
83 Congenital Occlusion of the Esophagus. William Thomas.
84 Chart of Static Modalities. F. Howard Humphris.
85 Agglutination and Sedimentation in Human Glanders. C. Montague Heanley.
86 Case of Acute Lymphatic Leukemia. H. Savory.
87 Case of Ovarian "Fibroid" Tumor Removed by Posterior Colpotomy; Subsequent Pregnancy. John Phillips.

79. **Snake Venoms.**—Rogers has studied the various forms of snake venom, both colubrine and viperine types, and describes their respective actions and peculiarities. In the colubrine type the tendency seems to be to a paralysis of the respiration and end plates of the phrenic nerves, while the hemolysis is slight. The viperine venom produces a paralysis of the vasomotor center with marked hemolysis, as well as noncoagulation of the blood. One colubrine form—Bungarus fasciatus, the banded krait—has a viperine action on the vasomotor center, and this is emphasized by failure of Calmette's serum to counteract its effects. The most powerful poisons seem to be those of the sea snakes and cobras. In most all of these, with the one exception, Calmette's serum had effect. It should be used in every case of colubrine poisoning. He thinks a more generally powerful antitoxin can be prepared by using in this preparation a mixture of the different purely colubrine venoms. Artificial respiration may also be of use; one case is on record in which life apparently was saved by it. In viperine venoms, on the other hand, the Calmette serum has little or no effect. Rogers finds that 0.1 to 0.5 c.c. of a 1 in 1,000 solution of adrenal chlorid immediately sends up the blood pressure in cats after viper poisoning, but it is not entirely effective. He thinks that it, as well as nicotin, may have some value; the latter also stimulates the flagging respiratory center and restores the blood pressure. The venoms of vipers are much weaker than those of the colubrine species, and this is in favor of the remedies. In conclusion, he recommends destroying all snake venoms at the point of inoculation by permanganate of potash. Of course, this will not be effective if the venom is allowed to circulate, which it does with great rapidity, but the use of a ligature around the part greatly increases its efficacy. He advises the use of pure crystals of the permanganate of potash rubbed well into the wound. At the suggestion of Sir Lauder Brunton, an instrument has been made consisting of a lancet covered with a sheath, with a receptacle at its base, in which permanganate crystals are kept. This instrument can be carried in the waistcoat pocket for instant use, and can be sold at a very low figure. He thinks his results warrant the use of this method in practice, especially as it affects the venom of all snakes.

82. **Gastric Adhesions.**—In 5 per cent. of postmortems, according to the records, evidence of present or ancient gastric ulcer is found. In 40 per cent. of such cases, according to Fenwick, there are adhesions. If careful examination is made, Paton estimates that adhesions will be found in the gastric region in about 2 per cent. of all postmortems. These may be due to stomach ulcer, gallstones, trauma, pancreatic disease, tubercle, syphilis, etc., but the only common causes are gastric and duodenal ulcer or disease of the bile passages. In 123 cases, Fenwick found adhesions to the pancreas, liver, or to both in 92, in the remaining 31 cases the stomach was attached to the colon, mesentery, liver or spleen, or to three or more organs. Adhesions to the anterior wall seem to have been absent. The situation is of importance, as the usual attachment is to one or more mobile organs which are liable to be dragged on. The adhesion may be close, broad or long and slender. A very unusual variety is that which occasionally occurs to the anterior abdominal wall, forming with the infiltrated stomach wall and the thickened abdominal parietes a tumor, which may be easily mistaken for a new growth. Such cases of plastic perigastritis have been recorded by Billroth, Mikulicz and Mayo Robson. Such extensive adhesions may have been caused by local gastric perforation. The effect of these adhesions may be to distort or constrict the stomach or to interfere with its motility and contraction, as well as to involve other organs like the gall bladder, causing jaundice, etc. Pain and tenderness are the principal symptoms. Physical examination as a rule reveals nothing beyond tenderness, and there may be an increase in the size of the stomach. The appearance of the tumor may suggest malignancy, but the long continuance of the illness without serious interference with the general health will be against this. Exertion seems to bring on pain and change of position may relieve it. The ingestion of food may have no effect whatever. Paton reports many cases. He recommends verifying the diagnosis by exploratory incision; this should be recommended to patients after a fair trial of dietetic, medicinal and general hygienic measures has failed. If adhesions are found, they should be separated or divided. To prevent adhesions reforming, he believes aseptic methods best, but no antiseptics should be used within the abdominal cavity. If any fluid is used, it should be sterile saline solution. Vogel has found that greater freedom of movement than is usual after abdominal operations is also useful in preventing adhesions, as well as mild laxatives and the use of atropin, salicylate, general massage, etc. In preventing peristalsis and where adhesions can not be separated, and it is certain that reformation would occur and the trouble seems due to interference with the stomach emptying itself, pyloroplasty

and gastrojejunostomy are valuable. The latter is usually the better.

Journal of Tropical Medicine, London.

February 1.

88 Appendicitis in the China Fleet. F. H. A. Clayton.
89 *Scarlet Fever in Natives of India. Wm. Robertson.
90 *Adrenalin Chlorid in Plague and Other Diseases. K. C. Bose.
91 Case of Spirillum Fever. Leopold G. Hill.

89. **Scarlet Fever.**—The immunity of natives of India to scarlet fever seems to be subject to some exceptions, as Robertson reports an epidemic of some thirty cases, with three deaths. He finds that the disease, as a rule, takes a milder course. It seems to spread with rapidity among the Indian children, and a larger proportion of adults take it than is usual in the white race. He thinks the skin of the Indian native does not permit of the profuse development of the toxins, hence grave forms of the affection do not occur. The fact that the native nasopharynx is healthier than that of the whites, as a rule, may account for a part of the resistance to the germ.

90. **Adrenalin in Plague.**—Bose reports 24 cases of plague, with 11 deaths, all treated by adrenalin in 1, 2 and even 3 drop doses internally each hour. He thinks there can be no doubt that adrenalin is a remedy safely to be tried in plague. He has treated over 60 cases by this method, and with results in no way unfavorable. In all stages of the disease it kept the pulse up well and brought down the temperature and seemed to relieve the maniacal delirium. Its tonic action on the heart is its best recommendation. No case in which this remedy was freely used died from interstitial hemorrhage. Its effect, however, on intestinal and pneumonic plague was not encouraging, for out of a good number of such cases, only 2 recovered. In bubonic plague, uncomplicated with lung and intestinal troubles, he thinks it is a sovereign remedy. He speaks highly of its value in typhoid, malarial spleen and in surgical practice.

Books Received.

Acknowledgment of all books received will be made in this column, and this will be deemed by us a full equivalent to those sending them. A selection from these volumes will be made for review, as dictated by their merits, or in the interests of our readers.

Liverpool School of Tropical Medicine—Memoirs—Report on Malaria at Ismailia and Suez. *By Ronald Ross, F.R.C.S.,* D.P.H., F.R.S., C.B. Paper. Pp. 24. Price, 36 cents. Report on the Sanitary Conditions of Cape Coast Town, with Suggestion as to Improvement of Same. 1902. By Dr. M. Logan Taylor, M.B., Ch.B. Price, 36 cents. Second Progress Report of the Campaign Against Mosquitoes in Sierra Leone. By M. Logan Taylor, M.B., of the Liverpool School of Tropical Medicine. 1902. Price, 36 cents. New York, London and Bombay: Longmans, Green & Co.

The Practical Medicine Series of Year Books, Comprising Ten Volumes on the Year's Progress in Medicine and Surgery. Issued Monthly. Under the General Editorial Charge of Gustavus P. Head, M.D., Professor of Laryngology and Rhinology, Chicago Post-graduate Medical School. Volume II. General Surgery. Edited by John B. Murphy, M.D., Professor of Surgery, Northwestern University Medical School. November, 1903. Pp. 556. Price, $1.50. Chicago: Year Book Publishers.

Infant Feeding in Its Relation to Health and Disease. A Modern Book on All Methods of Feeding. For Students, Practitioners and Nurses. By Louis Fischer, M.D., Visiting Physician to the Willard Parker and Riverside Hospitals of New York City. Third Edition, Thoroughly Revised and Largely Rewritten. Containing 54 Illustrations, with 24 Charts and Tables, Mostly Original. Cloth. Pp. 357. Price, $1.50 net. Philadelphia: F. A. Davis.

What Shall We Eat? The Food Question from the Standpoint of Health, Strength and Economy. Containing Numerous Tables, Showing the Constituent Elements of Over Three Hundred Food Products, and Their Relations, Cost and Nutritious Values, Time of Digestion, etc., Indicating Best Foods for All Classes and Conditions. By Alfred Andrews. Pp. 116. Price, 75 cents. New York: Health Culture Co.

A Manual of Medicine. Edited by W. H. Allchin, M.D., Lond., F.R.C.P., F.R.S. Ed., Senior Physician and Lecturer on Clinical Medicine, Westminster Hospital. Vol. V. Diseases of the Digestive System and of the Liver, Diseases of the Peritoneum and of the Vessels of the Abdomen, Diseases of the Kidneys, Diseases of the Ductless Glands. Cloth. Pp. 687. Price, $2.00. New York: The Macmillan Co. 1904.

A Handbook of Ophthalmic Science and Practice. For Students and Practitioners. By Henry E. Juler, F.R.C.S., Ophthalmic Surgeon to St. Mary's Hospital. Third Edition, Revised and Enlarged. With 190 Illustrations and 25 Full-page Plates in Colors and Black. Cloth. Pp. 733. Price, $5.25 net. Philadelphia and New York: Lea Brothers & Co. 1904.

Transactions of the New York Academy of Medicine, 1896-1901. Semi-centennial Celebration. Anniversary Discourses, Presidential Addresses, Memorial Addresses, Wesley M. Carpenter Lectures, List of Papers Read at the State Meetings of the Academy, Officers of the Academy and of the Sections. Paper, Pp. 471. Printed for the Academy. 1903.

Howe's Handbook of Parliamentary Usage. Arranged for the Instant Use of Legislative and Mass Meetings, Clubs and Fraternal Orders, Teachers, Students, Workingmen, and All Who Desire to Conduct Themselves "Decently and in Order" in Public Assemblies. By Frank William Howe. Cloth. Pp. 54. Price, 50 cents postpaid. New York: Hinds and Noble.

Biographic Clinics. Volume II. The Origin of the Ill Health of George Eliot, George Henry Lewes, Wagner, Parkman, Jane Welch Carlyle, Spencer, Whittier, Margaret Fuller Ossoli and Nietzsche. By George M. Gould, M.D., Editor of American Medicine. Cloth. Pp. 392. Price, $1.00. Philadelphia: P. Blakiston's Son & Co. 1904.

A Manual of General or Experimental Pathology, for Students and Practitioners. By Walter Sydney Lazarus-Barlow, B.A., B.C., M.D., F.R.C.P., Director of the Cancer Research Laboratories of the Middlesex Hospital. Second Edition. Cloth. Pp. 736. Price, $6.50 net. Philadelphia: P. Blakiston's Son & Co. 1904.

Department of the Interior. Bureau of Government Laboratories. Serum Laboratory. Preliminary Report on the Study of Rinderpest of Cattle and *Carabaos in the Philippine Islands.* By James W. Jobling, M.D., Director of the Serum Laboratory. Paper. Pp. 22. Manila: Bureau of Public Printing. 1903.

Diseases of the Eye. By L. Webster Fox, A.M., M.D., Professor of Ophthalmology in the Medico-Chirurgical College of Philadelphia. With Five Colored Plates and 296 Illustrations in the Text. Cloth. Pp. 584. Price $4.00. New York and London: D. Appleton & Co. 1904.

Eighth Annual Report of the Board of Managers of the Springfield State Hospital *of the State of Maryland,* Sykesville, Md. To His Excellency, the Governor of Maryland. Oct. 1, 1903. Paper. Pp. 52. Baltimore: Sun Book and Job Printing Office. 1904.

Rabies, Its Place Among Germ Diseases and Its Origin in the Animal Kingdom. By David Sime, M.D. Cloth. Pp. 290. Price, 10/6 net. Cambridge: University Press. 1903. New York: The Macmillan Co.

Memoria de Los Trabajos Ejecutados por el Consejo Superior de Salubridad, En El Ano de 1900. Paper. Pp. 184. Mexico: *Imprenta del Gobierno en el Ex.* 1902.

A Chart of Diseases of the Lungs, Pleurae, Bronchi, Trachea and Larynx. Paper. Published by the McArthur Hypophosphite Co., Ansonia, Conn.

Report of the Trustees of Bellevue and Allied Hospitals for Quarter Ending Sept. 30, 1903. Paper. Pp. 22. New York: Mail and Express Co. 1903.

The Ideal City. By Cosimo Noto, M.D. Cloth. Pp. 377. New York: New York Labor News Company. 1903.

Medical and Surgical Report of St. Luke's Hospital, Year Ending Sept. 30, 1903. Paper. Pp. 104.

New Patents.

Patents of Jan. 19 to Feb. 9 of interest to physicians:

750237. Iris-diaphragm. Edward Bausch and G. Hommel, Rochester, N. Y.
749811. *Surgical retainer. Augustus C. Bernays, St. Louis.*
750048. Casein compound and producing same. Hezekiah K. Brooks, Bellows Falls, Vt.
749813. Portable *x*-ray apparatus. Eugene W. Caldwell, New York.
750099. Ophthalmoscope. Henry L. De Zeng, Philadelphia, and P. S. Reid, Hammonton, N. J.
750103. Bedpan. Anton C. *Eggers,* New York.
750104. Throat bag. Anton C. Eggers, New York.
749963. Apparatus for applying disinfectants to water closets. George S. Gallagher, New York.
749728. Water purifying apparatus. John C. W. Greth, Pittsburg, Pa.
749731. Stretcher stand. Harry C. Hall, Telluride, Colo.
749934. Ligature tube. Bertram K. Hollister, Chicago.
749874. Coin-controlled atomizer. Wm. C. Meyer, St. Louis.
750568. Massage implement. James Barker, Philadelphia.
750521. Atomizer. Forrest V. Brayer, Blooming Valley, Pa.
750584. Administering electrical vibrations. Fred H. Brown, Los Angeles, Cal.
750347. Apparatus for disinfecting paper money. Charles B. Clark, *Buffalo.*
750260. Atomizer. Frank B. Comins, Sharon, Mass.
750625. Ear-drum protector. James A. R. Elliott, Kansas City, Mo.
750276. Vaginal syringe. Francis J. Gruss, San Francisco.
750465. Surgical instrument case. Frederick A. Koch, New York.
750297. Nasal douche. Fred W. Moffitt, Chicago.
750711. Optical device. Michael F. Shea, Newport, R. I.
750735. Implement for mechanical vibratory *treatment, Fenton* B. Turck, Chicago.
750515. Paraffin-bath for microscopists. Frederick A. Wunderlich, New York.
751266. Pocket spittoon. Joseph M. A. Deydier, Lyons, France
750832. Preparing food casein. Andrew A. Dunham, New York.
751167. Surgical chair. Aaron P. Gould, Canton, Ohio.
750983. Abdominal belt. Arthur B. Kendrick, Philadelphia.
750878. Vaginal syringe. Orville P. Moon, Lorain, Ohio.
751415. Nipple shield. Frank P. Prindle, Stamford, Conn.
751031. Massaging implement. Julius B. Wantz, Chicago.
751475. Speculum. Thomas De Vilbiss, Toledo, Ohio.
751513. Surgical instrument. Lyman C. Holbrook, Charlotte, Mich.
751942. Crutch. John A. Renno, Sumter, S. C.
751886. Apparatus for sterilizing water. Henry J. Wessels, Paris, France.

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THE PRESENT STATUS OF THE MEDICAL EXPERT.*

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Our present system of jurisprudence dates from a remote past. It has replaced the personal method of settling disputes and its later phase, trial by battle. Founded at a time when the national life was simple and civilization just beginning to displace the barbarism of the dark ages, it has, nevertheless, shown a remarkable elasticity in adapting itself to the changing conditions and increased complexity of a rapidly developing and maturer age.

To reason, however, that because our present system has endured for centuries therefore it should never be either changed or modified, does not seem good logic, nor is the incapacity to change a mark of excellence or perfection. "God alone knows what a petit jury will do" is an adage with which lawyers are not unfamiliar. That such a saying should have become proverbial is certainly not evidence that the present system is without its faults or shortcomings. The more than occasional vagaries of our petit juries arise from the fact that many cases now tried in the courts require of the jury more than a common-school education and ordinary intelligence to unravel the tangle of conflicting and often technical evidence and render a verdict which shall be in accordance with the actual facts. A hundred years ago there was little machinery in use, and the craftsman was in reality engaged in a handicraft, but at present the skilled craftsman of the earlier days of the republic has been replaced by an individual who is now nothing more than the tender of a piece of machinery. The problems of those times were those whose details were familiar to the juryman, because they were part of his daily life, or of such simple complexion as to be of easy comprehension. "Jurors reached their conclusions for the most part from personal knowledge already possessed." (Hist. Eng. Law, 2 Pollock-Maitland, 619-625.) The juries of that time were thus enabled to render verdicts which left little to be desired. To-day the circumstances which surround a jury are entirely different. Every decade adds new complexities to our civilization, and new perplexities to the ordinary juryman. He is often expected to unravel masses of technical evidence on subjects of which he is totally ignorant, to reconcile the evidence of warring experts and render a verdict according to the evidence. Is it any wonder that our present system sometimes shows signs of being overtaxed—in need of some modification or addition? Is it strange that a system that was quite adequate to the needs of a community which existed two centuries ago, should now show signs of inadequacy and incompleteness? Our national life has greatly changed and broadened, but our legal machinery has remained substantially the same. Nevertheless, the medical profession has found the lawyers perfectly willing to make proverbs concerning the uncertainties of a time-honored system, yet singularly conservative and unwilling to acknowledge it in need of amendment. This is partly due, no doubt, to the fact that our law is so largely made up of precedent. The courts of to-day are bound by the decisions of the courts of the past, whose decisions stand but whose judges are with the dust. There is good reason for conservatism in legal practice, but a precedent which has only the lapse of time in its favor is better honored in the breach than the observance, particularly where experience shows that it is the cause of frequent injustice when blindly followed, simply because it is precedent and so time honored.

To the medical profession there is no part of the administration of justice so important and of such interest as that which deals with medical expert evidence. Whatever else may be inefficient or defective in our present jury system, it is the present method of securing and presenting medical testimony to the jury that grieves and injures us.

The public judges any class of men according to their appearance in public; and, although our public functions are but incidents in our lives, merely occasional, unlike our confrères of the law and ministry, nevertheless the people continue to judge us according to our appearance when summoned to the courts to testify. In a recent article on expert testimony, Judge Woodward says of a prominent surgeon in this state, that he was asked the following question by the counsel for the prisoner: "Isn't it fair to assume if I had money to pay the physicians for their time that I could step out here in the city and secure half a dozen competent physicians who, in answer to the hypothetical question put by the district attorney, would give me exactly the opposite answer?" The witness replied: "I think it is." A survey of all the celebrated criminal cases of the past twenty-five years in which medical expert testimony has figured, would give ample proof of the truth of this answer. The record of the medical testimony in the countless damage suits which blockade the calendars of our courts would confirm it. Is it strange that the medical profession should occupy a lower plane in the public estimation than it deserves? It is unfortunately true that the testimony of the medical expert as at present procured and elicited in our courts, is utterly untrustworthy, and has brought unmerited disgrace and contumely on a body of worthy and self-sacrificing men. In the same article occur the following quotations from judicial opinions: From an opinion by Judge Goodrich: "Paid experts, swearing for or against the sanity of a prisoner, according to the amount of the fee and the person who calls them." Judge Rumsey: "The sole difference between the expert and an advocate being that he makes his argument under oath and that he endeavors to add the weight of the oath to the opinion of the advocate." Judge Adams of Canandaigua: "Expert witnesses are far more anxious to destroy each other . . . than to elucidate the particular question in issue."

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* Anniversary address by the president before the ninety-eighth annual session of the Medical Society of the State of New York, Albany.

These denunciations from the bench do not lack vigor. Is it then true that, in spite of the solemnity of our Hippocratic oath, our professed altruism, our unending record of charitable deeds. our high-minded codes of ethics, that we are, after all, but a set of hypocrites? Can an entire profession be so given over to the devil and his works as to deserve such denunciations? Are our ranks filled with liars and perjurers? Is it true that all the really good men follow the profession of the law, and do none of them by any chance filter into medicine? Let some psychologist or disciple of Lombroso scan the faces in this or any other assemblage of medical men and tell us whether we bear the stigmata of degeneracy, and are unable to tell the truth under oath if there is a dollar in telling a lie. On the contrary, the profession of medicine has ever been consecrated to the public service. When pestilence walked abroad in our land and its victims were falling on every side, struck down by the invisible arrows of death, then have legislatures adjourned in panic; judges, lawyers and clients fled from the courthouse until a more convenient season, but the physicians stayed behind. Had they some shield to interpose between their defenseless breasts and the darts of the unseen foe? No, they had no other shield save that which every brave man carries—an invincible determination, the inability to acknowledge fear, an overpowering sense of duty—and they interposed their own bodies between a stricken people and the midnight wrath, and fell by the wayside together with those they strove to save.

While this century was still in its swaddling clothes, in order to solve the mystery of the yellow death, men of our profession sought out and courted danger that they might rob the grim spectre of his mystery and his quiver of its most poisoned arrow. The members of the United States Army Yellow Fever Commission, who suffered themselves to be inoculated with the most dreaded of scourges, were just as truly the leaders of a forlorn hope as the uniformed band that storms a dangerous breach. Dr. Lazear died that others might live. He is not alone in his martyrdom, but stands enshrined in our hearts, the type of many who have gone before, and countless willing sacrifices that are to come. Such deeds as these have ever been the history of our profession. Is it possible, then, for virtue and mendacity to go hand in hand? Is an unselfish devotion to duty the twin brother of shameless greed? Says an ancient and sacred volume: "Do men gather grapes of thorns, or figs of thistles?" If medical expert testimony is at present without value, is it not reasonable to look for the cause of the defect elsewhere than in the personal character of the physicians or a faulty standard of professional morals? No one will contend that the men in our profession are less worthy of confidence in other respects than other classes of individuals, and, whatever may have been our differences with respect to codes of ethics, they have never been along the line of a lowered standard of truthfulness.

There must, therefore, be some other cause for the present untrustworthiness of the medical witness, and if it is not in the individual nor in the professional standard, the courts and the public must look elsewhere for the defect; and, what is of far more importance, be willing to correct it when found. Judge Endlich of Pennsylvania says (Am. Law Rev. 32-851): "It is not expert testimony that is at fault; it is in our way of handling it." In Griggs vs. The Lake Clear Water Company (40 Cal., p. 405), the justice who presided at the trial of the cause wrote as follows: "Even men of the highest character and integrity are apt to be prejudiced in favor of the party by whom they are employed, and as a matter of fact, no expert is called until the party calling him is assured that his opinion will be favorable." Says an English authority, Lord Campbell: "Skilled witnesses come with such a bias on their minds . . . that hardly any weight should be given to their evidence." In an action for a dissolution of partnership, one of the parties employed an expert to examine the books and sought to have the expenses taxed on the losing party. In refusing, the court said: "If the services of an expert are necessary for the proper presentation and determination of the case, he should be appointed by the court. When he is in the employ of one of the parties, the temptation to act in the interest of such party is apparent. Therefore, in order to secure his fair and disinterested services, he should be appointed by the court and not by either of the parties." Another opinion from the Supreme Court is as follows: "Expert witnesses ought to be selected by the court, and should be impartial as well as skillful and learned." Then follows the remarkable statement: "A contrary practice is now probably too well established to allow the more salutary rule to prevail."

This admission is an aspersion on both the bar and the legislature. A judge on the bench admits the breakdown of the system, but feebly exclaims that it has been too long established to be changed. If the lawyers are proud of that admission, let them make the most of it. Says Judge Woodward in the article before quoted, poking fun at the doctors: "The medical expert of to-day would laugh at the opinion of the medical expert of 1678 and 1679. . . . A hundred years from now medical men will, no doubt, laugh at the medical opinion of 1902." If the learned justice had said that the medical expert of to-day disagrees with some of the opinions held 200 years ago, his logic would have been more exact. I would like, however, in view of the above plaintive excuse for the retaining of a bad system, to call Judge Woodward's attention to his statement that physicians are quite willing to change a theory or practice in their own profession when experience has proved it erroneous or bad. They certainly do not insist on retaining it on the plea that "we have had it so long, you know."

Stability and permanence are in themselves highly desirable in any legal system. Constant changes in our rules of procedure would result in confusion and uncertainty, a condition of affairs intolerable in legal practice. To assume, on the contrary, that rules of procedure should never change, would give an authority and weight to precedent which ought not to prevail in the face of a proved necessity or desirability for change. Many great changes have already been made in our law, as, for example, in the law of evidence. Says Professor Robertson in his article on law in the Encyclopedia Britannica: "It (the law of evidence) has been almost wholly transformed by direct legislative enactment, act after act having been passed as occasion pointed out defects in what had already been accomplished." Under proper circumstances, then, in so conservative a land as Great Britain, the rules of evidence have been modified and amended to conform to the changing spirit of the times and the larger development of the national life. It does not appear that these changes, important and radical as they must have been to justify Professor Robertson's phrase "wholly transformed," have resulted in disaster to the British system of jurisprudence. It is possible, therefore, to bring about reformation in the long-established laws of a great state without wreck or wrong. That a change in the present system of selecting and presenting medical expert evidence is desirable, seems to be admitted by some very eminent jurists, although the opinions are not unanimous. Sir James Stephens expresses it as his opinion that the present system is perfect and in need of no change. An echo of this opinion is heard in Judge Woodward's article, in which he says: "I do not believe that the fault is in the system." It will be seen, therefore, that great legal experts differ on important questions of opinion as well as great medical experts, although to read the caustic remarks emanating from the bench, we are led to believe that physicians always disagree, jurists never.

It will be agreed that consistency in the law is just as important and desirable as permanence, yet we do not find either entire consistency or strict logic when we inquire of the law as to what constitutes an expert. Thus, in an opinion before quoted, the judge said of the expert that he should be learned as well as skillful. So, too, Chief Justice Shaw of Massachusetts says: "An expert is a person of large experience in any particular department of art, business or science. . . . It is because a man's professional pursuits—his peculiar skill and knowledge—enable him to draw an inference where men of common experience would be in doubt, that his opinion is admissible." But in Hathaway vs. National Life Insurance Company (48 Vt., p. 335, et seq.), the judge said: "A general practitioner is a competent witness. The law does not require the medical witness to have made a specialty of the subject to testify in relation to the same." It has even been held that a lawyer was a competent medical expert, who, sixteen years before, had attended a course of medical lectures, obtained a license from the state to practice, had practiced for one year, and then abandoned medicine for law, which he had been practicing during the interval. It is doubtful whether this lawyer-doctor or doctor-lawyer, declared by another lawyer as competent to give expert medical evidence, could have even described the circulation of the blood. In ludicrous contrast to this opinion is that of the judge in McEwen vs. Bigelow (40 Mich., 215), in which it was held of a plumber who had been out of business for twenty years, that "this was a long time to be out of a business that must have changed so greatly in that time," and he was held not to be entitled to give expert testimony. The trouble with the plumber, evidently, was that he had not become a lawyer, in which case the views of a sympathetic court might have been those of the California judge just cited. It is not quite clear, says Rogers, whether a man must have been engaged in active practice at all. There is an Alabama decision that it is not necessary. This decision is supported by the opinion of Redfield (Greenfield on Evidence), "but generally nothing more is required to entitle one to give testimony as an expert than that he has been educated in the particular art or profession." Thus a stripling, who has just gained his degree, is put on the same footing, so far as his right to give expert testimony is concerned, with a man of experience and distinguished attainment. The jury is left to decide on the relative weight which is to be given to the opinion of an impudent ignoramus and the learned and skillful expert described in another opinion. As an example of the evils of such a system, the following, which came under the observation of the writer, may serve: A man received a simple fracture of the lower end of the tibia in January, and was discharged from the hospital in February, with the fracture united, but with the slight edema that is usual in such cases after the removal of the plaster-of-paris splint. There was never even any pretense that suppuration had been present, as the fracture was simple. In May, the man contracted a lobar pneumonia, from which he died. His widow brought suit on the ground that the fracture was the cause of the pneumonia. The medical witness for the plaintiff, I will not call him an expert, testified that the pneumonia was of septic origin and due to the fracture. In vain two professors, one of clinical medicine and the other of surgery, testified that this was an impossibility, and that the patient died of a lobar pneumonia which bore no relation whatever to the fracture incurred five months previous. The intelligent jury gave the plaintiff a verdict, which, I am happy to say, was afterward reversed. Such a blunder was rendered possible by the loose and contradictory definitions of what constitutes an expert.

It is perverse logic which declares that a man who has the technical education of three or four years in a medical school is on a par in respect to his ability to give expert evidence with a man of the same education, but added years of experience and observation. Let us apply the same reasoning to the sister profession. On a complicated and doubtful question of law, what weight would the learned author of this remarkable opinion be willing to give a man who had studied law for a term in a law school, then abandoned law for medicine after a brief further experience of a year's practice, and, after sixteen years' interval, sought to be admitted as a legal expert, a veritable Daniel come to judgment? I doubt whether the learned justice would be likely to seek such aid in writing an opinion on a doubtful point. If this appears an absurdity when applied to the law, why is it any the less an absurdity when applied to medicine? Is medicine, then, so simple and law so much more profound, not to speak of the Michigan plumber? To the lay mind, a review of these conflicting decisions brings the conviction that there is too little certainty among the bench and bar as to the qualifications necessary to constitute a witness an expert. Still more anomalous becomes the position of the bench in the light of the following objection, which has been made by an eminent jurist, to the proposal that there should be a state board of experts. He says: "Men eminent in one branch of their profession often have a superficial knowledge of the other branches, so if all questions of medical science had to be referred to a board of government experts, suitors would be practically prohibited from availing themselves of other experts qualified by their special knowledge on that particular subject to form an accurate opinion." Nevertheless, all the decisions cited clearly permit incompetent men to testify, the only qualification apparently being that they shall have a degree in medicine and agree with the theory of the case held by the side that calls them. This is certainly very convenient for the suitors, but whether it is conducive to impartial opinions may well be doubted. Is it strange that a system which starts in confusion should end in chaos?

The function of the expert is very similar to that of the jury. He is usually called on to give an opinion on certain statements of fact generally placed before him in the form of a hypothetical question. Unlike the jury, however, he is not permitted to question these facts nor to pass on them. He is asked to assume their truth, and is then required to give his *opinion*, his verdict, if you please. Let us for the moment pass from the consideration of the expert to a brief consideration of that bulwark of Anglo-Saxon liberty, the jury, for ages the protector of the rights of the humblest citizen, which also renders an opinion on the facts brought out at the trial of the cause. The jury is a body of twelve men called from all walks of life to listen to the evidence, to give its just value so far as this is possible to finite minds, and render a verdict which shall be just. Court's and advocates, particularly in criminal cases involving the capital penalty and not seldom in important civil cases, spend much time in securing twelve men from a panel of hundreds of citizens who have shown themselves after the most severe cross-examination to be unprejudiced and beyond the possibility of bias. Frequently weeks have been spent in securing a jury, particularly in cases which have excited much public attention. This is a notorious fact, and adds thousands of dollars to the expense of the trial. Let us suppose that a contrary course was pursued, and the district attorney was permitted to name six men whom he had previously interviewed to his satisfacton, and that a similar privilege was given to the counsel for the prisoner to select in similar fashion six other jurymen, on the trial of the case what would be the prospect of an agreement? Fortunately for the administration of justice, our jurymen must still pass through a three-fold sieve before they are sworn in and admitted to the jury box. Before the jury thus carefully selected, each of the contending parties now summons expert witnesses who are to give their opinion on certain facts or alleged facts. It is just as important that they shall be free from bias as the members of the jury, for their function is very similar, yet precisely that manner of selecting them is used which seems monstrous when even mentioned in connection with the jury box. Says Judge Miller of the United States Supreme Court: "Skilled witnesses are required to speak not to facts but to opinions, *and it is* surprising with what facility their views can be made to correspond with the wishes or interests of those who call them." But why should it be surprising? The lawyers have chosen their witnesses on *ex parte* statements. Also Lord Campbell says: "Skilled witnesses come with such a bias on their minds that hardly any weight should be given to their evidence." Each of these utterances goes right to the heart of the evil, but blames the witnesses and passes by without a word of disapproval the system which is entirely responsible for the fact of bias, which is, after all, the charge against the expert. While opposing counsel are allowed to employ their own experts without restriction—in short, to go shopping until they match the color of their own case—so long will the courts be compelled to endure the evil which their complaints accentuate but will not remove. Can the bench expect that lawyers who are permitted to secure their own experts are going to summon men whose views contravene their wishes or the interests of their clients? The system is as essentially vicious applied to the opinion-testimony of the medical expert as it would be if applied to the jurymen whose verdict is to set the prisoner free or bend his neck under the sharp axe of the law. No doubt it may be replied that such an argument is simply the old excuse of extenuating circumstances. Hardly that. It is not intended as a plea *in extenuation. It is a charge of particeps criminis* against the law which invites the fault and the lawyers who are responsible for the retention of a system which many of them acknowledge to be bad.

Again, it may be said that it ought not to be possible for one lawyer to be able to retain a set of expert witnesses to testify on one side of a case, and for a second lawyer to get a second set of experts to testify on the opposite side. Such a criticism is perfectly just, and is particularly deserved in many of the damage suits which are so common in our courts to-day. There are lawyers known to the bar as ambulance chasers, who have runners constantly on the watch for accident cases, of which they learn through the daily papers. These unscrupulous members of the bar, with the aid of equally unscrupulous members of the medical profession, rob corporations of thousands of dollars every year. I can not say that I see any difference in the culpability, or that the doctor is more blameworthy than his principal, the lawyer, who brings the suit too often built up of manufactured evidence. They are a pair of precious rascals. I seek to excuse neither. It is the system, however, which renders their partnership possible. If the law rendered this evil alliance more difficult, or perhaps impossible, justice would be the gainer as well as the corporations. No amount of scolding from the bench will be effectual. Bad men have never been made to mend the evil of their ways by mere denunciation. They do not fear the fulminations from the bench, provided a sentence to jail does not follow. The householder who kept his silver on his doorstep might denounce the thieves who robbed him of his treasure with the full vigor of an unbridled vocabulary. No one would doubt the sincerity of his wrath, and the police would doubtless catch the rascals if they did not run too fast. The neighbors, however, would come to the conclusion that the wisest plan to prevent the loss of their valuables would be to keep them in a safe. So it is better to amend a system which is known to permit evil, and thereby prevent it, than to continue the system and imagine that anything can be accomplished by denouncing *the criminals who are the direct offspring of* the system itself.

There is, however, another class of cases in which the issues to be submitted to the medical expert are difficult or doubtful. Such are many will cases in which the testamentary capacity of the decedent is in question, damage suits in which the injury is of an obscure nature and the ultimate result doubtful, borderland cases of insanity, and criminal cases in which perplexing questions of medicolegal jurisprudence are likely to arise. There are no problems in medicine more difficult of determination than those which relate to testamentary capacity. How far may reason wander from the normal and yet the individual be of sound and disposing mind? Eccentricity of itself is not a sufficient reason for pronouncing a man insane, and yet there are many cases in which it is hard to say exactly what is the limit of eccentricity beyond which lies undoubted insanity, and the inability to make a legal will. There are criminal cases also in which the question of the criminal responsibility of the prisoner, by reason of a disordered intellect, is a matter of doubt. The medical profession can point to cases in this country and England in which insane persons have been punished for crimes committed, which would have been impossible had the individual been in a normal condition. In damage suits there are many cases in which, as a result of a violent shock from accident, the nervous system of the victim becomes deranged so as to make him a confirmed invalid. Confirmed, did I say? It is this very question which is most difficult to answer. Such cases as these are all debatable and likely to be subject to differences of opinion. Here we require not only the highest skill and the longest experience in the expert (yet from the decisions quoted it will be seen that there is no exact definition in the law as to what constitutes an expert), but it is also doubly essential on account of the doubtful or difficult nature of the questions involved that the experts shall approach the case with as little bias as the jury. No amount of invective from the bench will ever change human nature. Let us suppose the case in point to be criminal. The prisoner has been indicted for murder and the district attorney summons medical witnesses to support his contentions. On the other hand, the counsel for the prisoner summons experts before whom the case of the prisoner is laid for the purpose of defense. It is not in human nature that two sets of men engaged to examine the case of the prisoner, from two opposite standpoints, shall not be influenced by their point of view. There is nothing which is supposed to be more exact than the solution of mathematical problems. Nevertheless, astronomers invariably make a certain allowance for errors of observation in their calculations which is denominated the "personal equation." If the personal equation can enter into the abstruse problems of pure mathematics to an extent sufficient to require definite allowance, what value shall we give to the personal equation of two sets of medical experts called to decide a difficult problem in psychology or toxicology, and who view the question from different standpoints? What allowance shall be made for the personal equation when a blunder means not an error in the position of a star, but a life wrongfully taken by the state? It may be urged that bias should have no place in the minds of educated men, and that it ought to be possible for medical experts to consider the problems of medicolegal jurisprudence dispassionately without reference to the side which calls them. The law courts of a country are supposed to be as free from bias as is possible for any human tribunal, nevertheless the electoral commission which sat in the Tilden-Hayes case divided on strictly party lines. Purrington, in an article read before the New York State Association some years ago, quoted the *London Law Times* as follows: "It is curious that politics took sides, perhaps involuntarily, in deciding the case of Flood vs. Allen." In this celebrated case eight judges reversed the opinion of thirteen because the eight had the final decision, or what lawyers sometimes jocularly term "the last guess." Purrington further states that the same periodical cited a speech of Lord Brougham to show that in his recent day the decision of English judges might be predicated from their political leanings. Evidently in the law courts the point of view means much, not that there is the slightest suggestion that conscious bias is ever present. Facts like these, which might be multiplied almost indefinitely, show how difficult it is to get rid of personal equation, whether in the realm of pure mathematics, law or medicine. If the vapors of unconscious bias can drift behind the closed doors of our highest tribunals and cast the dews of prejudice within on the pure lustre of the shield of justice, what can we expect of a system which not only does not provide against the existence of prejudice, but, on the contrary, actually invites it?

The present law first paves the way for the appearance of witnesses as experts who may, nevertheless, be incompetent, then through the manner of their selection by the interested parties renders it almost impossible for them to be without bias, and finally proceeds to elicit their testimony by means calculated to gag the witness at exactly the point where his testimony becomes inconvenient to counsel or dangerous to the client. The hypothetical question, which is the method most frequently used in our courts for the purpose of eliciting the opinion of experts, is calculated rather to confuse the jury than to enlighten them, and frequently involves the serious logical fallacy of the *suppressio veri*. It is evident, if we are to continue to summon our jurors from all ranks of society without reference to previous education or present intelligence, this in itself constitutes a cogent reason why the evidence presented shall be clear and readily understood by even a limited intelligence and the most rudimentary education. There is a case (Haish vs. Payson, 107 Ill., p. 365) in which the hypothetical question covers two and one-half pages of the law reports. Hypothetical questions of less but still formidable length are common. In the Guiteau case, that of the defense comprises over 300 words, and Rogers states that the hypothetical question of the prosecution "is too long to quote." Only last week a hypothetical question was put to one of our ex-Presidents, which took an hour to read. It is true that the question is not addressed to the jury but to a witness; nevertheless, on this answer the jury must pass, and if the question is unintelligible or difficult to follow on the part of the jurymen, how are we to expect that their opinion of an opinion will be of value? The present legal status of the hypothetical question seems to be involved in as many contradictions as the legal view of the qualifications of the expert. Rogers, in his work on expert testimony, says that the hypothetical question is not improper simply because it includes only a part of the facts, and if framed on the assumption of certain facts, counsel may assume the facts in accordance with his theory of them, it not being essential that he should state the facts as they actually are. In Cowley vs. People, 83 N. Y., Judge Folger lays down this dictum and the following comment: "If the facts are in dispute, then there would be no room for the hypothetical question, if the question must state the facts as they exist, since the jury are to determine what are the facts." On the other hand, in Fraser vs. Jennison, 42 Mich., 206, the court said that a question "which assumes a state of facts not warranted by the testimony will not be allowed," and in our own state, in Dillebar vs. Home Life Insurance Company, 87 N. Y., p. 79, the court said that the testimony should tend to establish the facts embraced in the question. Judge Moore of the Supreme Court of Michigan said: "If one fact supposed to be true included in the question is untrue, then the opinion of the physician would be valueless." It is difficult for the layman to reconcile opinions which seem so contradictory. Judge Folger's opinion seems to mean that a lawyer may propound to the medical expert a hypothetical question which shall state certain unproved facts essential to his theory of the case, but which shall suppress unfavorable facts, and then insist on a categorical answer which may involve an actual suppression of the truth instead of the whole truth which the witness is sworn to reveal.

Judge Woodward's remedy for this state of affairs is an appeal by the witness to the court; nevertheless, it is the experience of the writer that the court has invariably directed the categorical answer, leaving to the re-direct or cross-examination to bring out the whole truth. The trouble with this method is that unless counsel be instructed by witness or an assisting expert as to the fallacy involved, he will let it pass. But it is impossible for a witness to suggest questions to counsel, nd the partisanship of a medical expert who is present at the trial for the purpose of assisting counsel is so evident to the jury as to deprive his testimony of any value and casts a shadow on all the expert testimony. A familiar and humorous example of the fallacy a categorical answer may involve is the old query, "Have you left off beating your wife?" Not a few of the hypothetical questions which are directed at the medical expert are designed to involve him in a dilemma which may not be so humorous or obvious, but which is, nevertheless, just as truly a dilemma, on either horn of which he will be impaled. Under Judge Folger's ruling, it would be perfectly possible for two different sets of experts testifying on opposite sides of the same case, to testify nevertheless on totally different statements of facts and be reprimanded by the court for disagreeing and lectured for their sins accordingly. In Davis vs. State, 35 Ind., 496, the same principle is laid down as follows: "After counsel have propounded to an expert a hypothetical question based on the facts assumed to have been proved in accordance with their theory of the case, opposing counsel may propound the same question based on facts assumed on the opposing theory." This leaves the jury to disentangle the truth from the masses of conflicting testimony, a task of which in many cases it is quite incapable. In the face of such a preposterous proposition as this, the medical expert is made the football of the bench, the bar and the press, and we are told that expert evidence is of little if any value. Says Judge Endlich of Pennsylvania (Am. Law Rev. 32, 851): "The vast majority of hypothetical questions does not and never will adequately and impartially present the actual or most probable state of the case," a statement which, in the light of the opinions quoted, seems to be axiomatic and therefore incontrovertible.

The medical profession is weary of being told that the fault is with it; weary of the ready and easy denunciations of the bench and the ill-considered jibes of bar and press. Men of the law, we protest against your system! We protest against its inconsistencies! We protest against it as inviting the chaos you are so fond of condemning! You admit, through the utterances of eminent judges and in the pages of your text-books, that you have no sufficient standard of qualifications. You admit that your system invites instead of preventing bias. You admit that the hypothetical question is not calculated to present all the facts to the expert. Nevertheless, up to the present time, in spite of the protests of the victims of an essentially vicious method; in spite of the reports of committees of your own profession and of joint committees composed of members of both professions concerned; in spite of the opinions of your most noted jurists, you absolutely refuse to change, but content yourselves with denouncing a profession which you wrong. You tell us that we must mend our ways. Judge Woodward, in the article before referred to, states his remedy as follows: "Where a doctor commits perjury, his fellow-doctors are apt to know it. Prompt expulsion from his medical society would tend decidedly to discontinue the imitation of his example." So this is the wonderful remedy which is to reform the evil! The medical society is invited to expel a man for giving opinion-evidence on the ground that his fellow-physicians will be apt to know that he has committed perjury. But how is the medical society going to prove that the opinion of which they complain and with which they do not agree, is not the opinion of the witness, and that he uttered said opinion with the intent to commit perjury? The difficulty with the judge's remedy is in its application. If the medical society attempted to expel a member on any save legal evidence, the judge would, if applied to for an injunction, be compelled to grant one against the use of his own prescription. If the medical society can secure legal evidence, so can the court; yet in another paragraph of the same article, the judge states that it is impossible to convict of perjury because the evidence is opinion-evidence. Rogers ("Expert Testimony") makes the same statement, and yet the judge asks a body of medical men to do what he confesses the courts can not do, although the same evidence of intent would be necessary in both instances. He asks of us impossibilities.

It is said that enlightened public opinion is the greatest destroyer of frauds. Enlightened public opinion, it is true, but it often takes a long time to enlighten. Bear witness, Eddyism, Dowieism, mental healers, osteopaths and kindred frauds in which the public delight! Has public opinion, although adverse to gambling with cards, ever been unfavorable to stock gambling, which is more vicious because more far-reaching in its evil results? Does it denounce the operations of so-called high finance, the stock watering and legerdemain by which stockholders and the public are robbed under the form of law, or, rather, in spite of laws ingeniously evaded by the aid of counsel skilled in the art of legal intrigue? Such remedies as these are nothing but the flimsiest of excuses and an evasion of responsibility on the part of those who are responsible for the perpetuation of the evil. To charge the medical profession with the faults of a system which it deplores, but is powerless to change, is nothing else than an attempt to shift the real responsibility—an effort to make of a self-sacrificing and honorable profession a hedge of defense and a hiding-place. It is always safe to abuse a doctor when he fails to please or does not succeed in accomplishing the impossible.

As a result of constant effort and complaint on the part of the medical profession, some desultory attempts have been made in this state and in Pennsylvania, Massachusetts and Illinois to bring about reform, but so far all efforts to change the system have either been strangled in the legislature or come to an earlier death at the hands of the bar associations of the different states. In New York, this society appointed a committee to co-operate with a similar committee from the bar association, but after dragging on for two or three years, the committee reported its inability to accomplish anything. In Pennsylvania, the committee's report, prepared by Judge Endlich, was disapproved when it came up in the bar association of that state, although if its recommendations had been carried out it would have put an end to the evil practices for which we are held responsible. It is not the intention of the writer to minimize the difficulties of the problem. Important questions of privilege, questions involving the constitutionality of suggested changes, the essential difficulties of making any change in a long-existing custom, but more especially the difficulty of getting lawyers to relinquish their present right of getting expert evidence where they can, when they can and how they can, all these difficulties we concede. They can not be solved, however, by an attempt to hold the wrong parties. Constitutional amendments have been passed in this state on much less important matters, and if it has been possible to materially change the law of evidence in so conservative a land as England, it ought to be possible to introduce reforms in the legal procedure of this state, which by many jurists of the highest standing are conceded to be necessary. Doctors are not learned in the law, and it is not easy for them to suggest remedies for a system which has inflicted on them so much unjust and unmerited criticism. Indeed, it seems to them that the legal profession ought to be willing to mend its own fences. Up to the present time, however, all that has been done by our brethren of the law is to invite us to expel erring experts from our county societies on illegal evidence, or to extend the provisions of the code of ethics "so as to embrace the conduct of the medical man when he assumes the rôle of expert witness." We respectfully decline to burn our fingers in either of the two ways suggested. To us, as mere laymen, it seems necessary to correct the faults of an antiquated system in order to bring about the much-desired reform.

It seems obvious, if we are to make use of expert testimony, that it should emanate from real and not from pseudo-experts. It ought not to be possible for a lawyer to introduce a recent graduate as an expert in insanity, when the law provides that he can not act as examiner in lunacy until he has been in practice for three years. An interval of five years in active practice after graduation is not too long for the blossom of theory to ripen into the fruit of experience. No student of medicine on graduation is competent to give opinion-evidence in court except in the simplest matters. Let the state require this interval before a doctor is allowed to give opinion-evidence. Such a law would not preclude his testifying on questions of fact. In addition, the state should require at the end of this period an additional examination, under the auspices of the present state boards as conducted by the three schools of medicine, to insure the fitness of the intending expert.

This is a very different proposition from the establishment of a state board of experts, to which objection has so often been made, for it does not confine the litigant to a small number of men selected by the state whose evidence is to have a higher value than that of the non-official witness. In fact, such a witness is not an official witness at all, any more than the physician who has passed his state board examination for a license to practice is an official doctor. Each has been stamped with the hall mark of fitness—nothing more. Examinations for promotion are held in the medical departments of the Army and of the Navy, and there is no good reason why the physician who wishes to testify as an expert should not show his special fitness for a work of such importance to the state and to both professions. For the purpose of providing for the period of transition, exemption from such examinations might be made in the case of men who had been twenty years in practice prior to the passage of the act, and to men in medical schools who hold positions above the rank of instructor; also of the hospital man who has spent at least five years in the service of a hospital of at least fifty beds. Such exceptions as these may be necessary as a temporary expedient only, and in order to provide for the inconveniences involved in any sudden change. The problem of securing an expert witness without bias is more difficult, since under the law every client is protected in his right to offer any evidence which may be material. Consequently, at present he can not be prevented from selecting his own witnesses, whether lay or expert. Nevertheless, just as long as this practice continues in the case of the medical expert, we shall rarely be able, even in the most conscientious witness, to provide against the unconscious bias which may exist on the bench of the highest courts as well as in the minds of the faculty. This it is which is the chief evil in the system. No doubt some improvement may be expected from the erection of a proper and moderate standard of qualification such as has been suggested, but to do this and yet leave untouched the greatest of the evils complained of, would be very ineffectual therapeutics. The most feasible and simplest way of bringing about a change in this respect, although not ideal, is to leave the selection of the experts for both sides in the hands of the judge. In the long run, we should get better results than if the selection of the experts were to be left in the hands of a state body like the New York State Board of Regents. Moreover, I believe it would be much easier to get the consent of the bar to such a change. An objection by Judge Bartlett of the appellate division of the Supreme Court to entrusting the bench with such a function is that a man may be a good judge of law and yet be a very poor judge of doctors, a statement with which those of us will agree who have never had the privilege of treating judicial gout or dyspepsia. As long as there is no standard of qualification, this objection will have much force, but if a judge were compelled to make his choice from men who possessed the qualifications suggested, he could not make any very serious blunder; and while it is true that the very best men would not always be selected by the bench, not as good perhaps as by a state board, yet we should be in a fair way to get unbiased opinions at least and a reasonable degree of competence. Undoubtedly it would also be better for the state to pay the experts a fixed fee, such as was suggested in this state some years ago, the minimum being $10, which is too small, and the maximum $100, this latter fee being for the entire day in court. Such a practice would, however, have the serious objection of increasing the burden of the taxpayers. The alternative to this would be to fix the fee at $100 a day, with a minimum of $25 for any opinion-evidence, however short, and leave the payment of the experts to the suitors, as at present. Even under this plan it would no doubt be possible for a designing lawyer to suggest that while the legal fee was $100, further compensation would be forthcoming if the opinion was favorable to his contentions. I know of no way of providing against such a possibility. We can only approximate, never secure, perfection in this world. Men will continue to be avaricious, untruthful, ready to do evil rather than good, so long as the sun rises and sets in this sad world. There is no specific for sin except in the new heavens and the new earth, and the man who demands perfection in any system, whether it be of law, theology or medicine before he accepts it, will have to go to his grave unshriven, intestate, with a coroner's certificate as his passport to the tomb.

Finally, in the matter of the hypothetical question, I believe that the medical profession would be glad to see it abolished entirely in accordance with the recommendations of Judge Endlich of Pennsylvania. If it is to be retained it ought to be submitted on an agreed statement of facts. In no other way can it be made use of without confusing the jury and of necessity antagonizing the experts. How can they be expected to agree if they testify on different statements of fact? Much time might be spent in discussing the substitutes for the hypothetical question, but the writer is conscious that there are limits to the forbearance of the most lenient audience. It has been his intention rather to throw into the strongest possible relief the faults of the present system which need correction, than to enter into a critical examination of the many different remedies which have been proposed. After all, in law as in therapeutics, it is better to attack the cause of an evil than to treat symptoms, and the investigators who have discovered the causes of a disease have gone a long way toward preventing it.

This matter concerns two learned professions. On one hand stands the profession of law, the protector of the feeble against the mighty, the safeguard of all government, dispenser of equal justice. On the other stands the medical profession with high ideals of self-sacrifice, high professional standards of right and wrong—the wish to give of their best to individual and public alike. Shall these two great professions stand arrayed against each other on so vital a matter? Must there be no further progress toward reform? Shall we continue to waste our breath and printers' ink in mutual recrimination? The problem is difficult but not impossible of solution, and it must be solved. The profession which boasts a Taney, a Marshall, an Evarts and a Taft, will not always refuse justice to the profession which has given to the world a Jenner, a Koch, a Behring and a Reed.

Original Articles.

CHRONIC ADHESIVE SCLEROSING PERITONITIS, OR PLASTIC PERITONEAL SCLEROSIS.

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The "chronic adhesive sclerosing peritonitis" of the Germans is a rare disease, and, so far as I can determine, has escaped recognition and description in most of our American text-books. One or two articles in the current medical journals of the last ten years describe conditions resembling true chronic adhesive sclerosing peritonitis, but the disease is nowhere accurately described as a distinct pathologic entity. This is all the more remarkable, as it appears to be well known in Germany, Virchow having alluded to it as long ago as 1853, and Riedel has recently considered the subject comprehensively. In the new edition of the "Handbuch der Practischen Chirurgie" by von Bergmann, von Bruns and von Mikulicz (Vol. 3, p. 85), a detailed description of the disease is to be found and the pathologic picture is so closely similar to the findings at the operation and necropsy in the case here reported that ours was readily recognized as one of chronic adhesive sclerosing peritonitis, though none of those who saw the case had ever seen any other and none of the surgeons of large experience who were told of it had any recollection of having encountered one like it.

According to the description in the handbook mentioned, it may occur at one or many points in the peritoneal cavity, but the areas about the female genital organs, the gall bladder, the flexures of the colon, the posterior part of the peritoneum, the root of the mesentery, the mesentery of the sigmoid flexure and the omentum are the points of selection. As a consequence of the chronic inflammation, thickening of the peritoneum results, which leads to shrinking.

It is alluded to as *Narbenbildung-Schrumpfung, Adhasionbildung* and adhesive sclerosing peritonitis, the latter name being descriptive of the pathologic picture presented by the disease. It is further stated that chronic adhesive and sclerosing peritonitis may be a sequel of acute infections of the intestines. All parts of the abdomen where circumscribed acute peritonitis often takes place are liable to adhesive processes. Trauma of the abdomen often gives rise to it, as well as operative procedures. The complaint may, however, start in a chronic form and reach a high state of development without an acute stage having preceded and without the patient being able to give a definite cause for its onset. The functions of the large intestine are very much interfered with, through adhesions in the cecum and flexures and mesentery of the sigmoid. Chronic constipation is, therefore, a frequent result of such conditions.

The English terminology of the forms of chronic peritonitis is so involved and the descriptions of the various phases of the disease so vague that the impression is forced on one that proper classification of such diseases as may produce this effect has not yet been made.

Under the term "Proliferative Peritonitis" (on p. 603) in Osler's text-book, a brief description of the condition here considered may be found while the exceptionally exhaustive and able papers of A. G. Nicholls[1] treat of "Chronic Hyperplastic Peritonitis," and Douglas' "Surgical Diseases of the Abdomen" describes a form of fibroid tubercular peritonitis which resembles true chronic adhesive sclerosing peritonitis; and A. J. O. Kelly, in a paper on "Multiple Serositis," makes allusion to like conditions.

The essential characteristic of chronic adhesive sclerosing peritonitis, as described in the handbook I first mentioned and as observed in our case, is extensive subperitoneal fibroid infiltration or scleroses, without ascites and without "serofibrous or fibrino-purulent exudation."

This would seem to demand for the disease a different classification from those pathologic processes which produce the well-known icing liver of Curschmann, and though it may be of tubercular origin, that hypothesis is far from being proved, and it is manifestly improper to confuse it with specific tubercular fibrosis, as described by Douglas.

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[1] Studies from the Royal Victoria Hospital, Montreal, 1902, and The Journal A. M. A., March 14, 1903.

Indeed, chronic adhesive sclerosing peritonitis would appear to be primarily not a peritonitis at all, but a distinct affection of the subperitoneal and visceral fibrous or connective tissue, the feature of adhesive peritonitis supervening as a result of traumatism, operation or of transmigration of intestinal bacteria through impairment of the natural resistance of the tissues.

In view of this fact might it not be better for us to agree on a name for the disease which would more closely indicate its characteristics, as is done by the Germans, or perhaps even simplify the title they have given it by calling it plastic peritoneal sclerosis?

This name, through the broad significance of the word sclerosis, suggests chronicity, slight inflammatory action, contraction, and the histologic elements actually involved, while the word plastic indicates the secondary effect of the malady.

THE NARRATION OF THE CASE.

The case here reported was seen with me previous to the first operation by Dr. Leonard Freeman of Denver. He assisted me at the first two operations, and was principal at the third, in which I acted as his assistant. To Dr. Freeman is due the credit of suggesting the possible character of the malady, he having read the article above quoted just prior to the last operation, his surmise being amply verified by this operation and the subsequent necropsy. Drs. J. N. Hall and J. E. Kinney were also valued consultants throughout the later stages of the disease, and Dr. J. A. Wilder examined the tissues and reported the pathologic findings. To all of them I desire to make acknowledgment and offer thanks.

Previous History.—The patient came to Colorado about twelve years ago because of chronic and intractable malaria. She had been married twenty years and borne two children. the last ten years ago. She was 45 years of age, and had never been robust.

Present Trouble.—About seven years before her death she had a free hemoptysis, and for many years she was subject to attacks of vomiting, pain and flatulency, accompanied and followed by frothy, yeasty and very offensive stools. Her nutrition and digestion were never very good, and during the last two years of her life were poor.

In June, 1902, sixteen months before her death her malnutrition and distress became so profound as to demand interference, and as she presented at this time the classic symptoms of a chronic appendicitis and had a very movable right kidney, it was determined to operate for these and to make an exploration of all the abdominal organs.

First Operation.—An operation was performed June 17, 1902, at St. Luke's Hospital, with the assistance of Dr. Freeman. The vermiform appendix was removed, the right kidney fixed to the parietes and an exploration of the pelvic and abdominal organs made. In making the closure of the abdominal wound, however, a difficulty was encountered, the significance of which was not appreciated at the time, but in the light of subsequent events it assumed a place of great importance, and had we known chronic adhesive sclerosing peritonitis then as now, it would have lead to an immediate, positive diagnosis. This phenomenon was a total inability to approximate the peritoneal surfaces below the muscles, the peritoneum having contracted from the edges of the cut muscles so that it could not be brought together. It did not then give us the impression of being thickened, though could we have observed it with our present knowledge of the disease, we probably would have found it so. No other pathologic conditions were found at this time, sixteen months before death.

This phenomenon must be regarded as pathognomonic of this disease and every effort must be made to cover the wound, as otherwise conditions favorable for the development of the most serious phases of the disease are left, the viscera adhering to the abraded surfaces and giving rise to serious complications, as the sequel in our case demonstrated. If the peritoneal surfaces can not be approximated, a covering of omentum should be made, if, indeed, the disease has left any omentum available.

Result.—The immediate result of this operation was to improve the general health and comfort of the patient. The old diarrhea was arrested and gave place ultimately to constipation. After about a year had elapsed, however, anorexia, nausea, vomiting, constipation, flatulency and finally great rectal pain and tenesmus with reflected pains into the back and legs developed. Examination revealed a mass underlying the upper end of the scar of the old incision, which seemed to involve the pyloric end of the stomach and to be attached to the pancreas. A tight and rigidly undilatable stricture of the rectum was found, one-third of an inch in diameter, three inches from the anus, and the pouch of Douglas was filled with a tumor, three inches in diameter, which seemed to be incorporated with the rectal obstruction. Though the patient was not cachectic, the presumption that the case was cancer seemed so great that this diagnosis was uppermost in our minds, though the hope was held out to the patient and family that it might not prove to be so.

Second Operation.—An immediate operation for the relief of the rectal obstruction was urged, and on Sept. 30, 1903, was done at the Woman's Hospital in Denver. The usual incision for an inguinal colostomy was made, and through this the pelvic and pyloric masses were examined. The pelvic tumor proved to be a solid tumor of the right ovary, three inches in diameter, and was easily tied off and removed, as it was pedunculated, though firmly impacted and wedged in the pelvis. The rectal band was entirely distinct from it. The rectum sigmoid and whole colon were densely packed with hard feces, and the pylorus and intestine were matted together in a huge mass which was very adherent to the old scar. The detachment of these adhesions was impossible. The sigmoid was drawn through a valve-like opening and the usual colotomy made on the fourth day. The feces were washed out from day to day and so the rectal tenesmus was relieved and the comfort of the patient promoted. Again the difficulty of the first operation was encountered in closing the wound. The contraction was much more pronounced than before, and again its true meaning was not understood.

Result.—No infection followed, and in three weeks the patient was up in a chair and doing well, when, after some unusual article of diet, great pain and tenderness, with gaseous distention, developed. No relief could be procured through the fistula, and it became evident that a complete intestinal obstruction had formed above the fistula, and as the whole colon could be distended with water and then emptied it was evident that the small bowel was involved.

Hopeless as the case now appeared, the determination was reached to again operate for the relief of the obstruction.

Third Operation.—Dr. Freeman undertook this last operation, I assisting. The probable nature of the case was now suspected, as the German account of the disease had come to his attention.

A long incision was necessary, and the whole length of the distended small bowel was examined to determine at last that the point of absolute obstruction was near the lower end of the ileum and that it was solidly attached to the underside of the inguinal colostomy incision at the point where the peritoneum could not be made to cover it. This attachment was so firm that the bowel was torn completely across in an effort to separate it, and it was necessary to resect about six inches of intestine and make an anastomosis with a Murphy button. In order to get around the mass of adhesions about the pylorus which involved the stomach, gall bladder, duodenum and pancreas a gastro-enterostomy was done, though with great difficulty, as the stomach was contracted to about the diameter of the large intestine and was enormously thickened so that the shank of the Murphy button was scarcely long enough to reach through and lock, and the purse-string suture in the stomach wall could not be made to pucker the tissue about it. Much difficulty was again encountered in closing the wound in the peritoneum.

Necropsy.—Fourteen hours after this operation the patient died, and consent for a partial necropsy being procured, the following striking pathologic conditions were found: There was a general shrinking, thickening and contraction of the peritoneum everywhere, but it was most marked in the regions indicated as the favorite sites of the disease, i. e., about the pylorus and gall bladder, the flexures of the colon, the rectum and pelvic organs, the mesentery and the peritoneum covering the posterior wall. There was no ascites and no serofibrous or fibrino-purulent exudation on the peritoneum.

The stomach wall was in places more than half an inch thick and the gall bladder, duodenum, pylorus and pancreas were so matted together as to be quite inextricable. The pancreas was small and so infiltrated with connective tissue growth as to be almost cartilaginous in consistency. At three points the small bowel was so tied down by contraction of its mesentery as to have its lumen greatly interfered with, and the caliber of the rectum at the point of constriction was reduced to a diameter of less than a quarter of an inch, with its walls quite three-fourths of an inch in thickness. A loop of the extreme lower end of the ileum was very firmly attached to the bladder. There was also a firm stricture at the pyloric end of the stomach of only about one-third inch in diameter. The mesentery of the small bowel was rather thickly studded with small miliary nodules, which were apparently not tubercular.

Most curious of all was the condition of the kidneys: The right, which had been fixed at the first operation, being so firmly attached as to make its removal almost impossible, and both the right and left kidneys presenting a condition of cystic degeneration or hydronephrosis due to pressure on the ureters by the shrinking fibrous posterior peritoneum. The liver and spleen were normal, though the superior surface of the liver was adherent to the diaphragm. At the site of each of the former incisions through the peritoneum the viscera were firmly adherent to the cicatrix. The cut surfaces of the thickened stomach and rectal wall were white and glistening and showed an enormous hyperplasia or connective tissue growth. This was also true of the pancreas and the mesentery of the bowel, which was very much thickened and shortened throughout. None but the abdominal organs were examined.

Incidentally, it may be mentioned that for about fifteen years this woman had a peculiarly dry, wrinkled and shrunken skin, with almost a complete arrest of secretion from its glands, coincident with the development of the first abdominal symptoms, which may have been a part of the general pathologic process.

Microscopic Examination.—Dr. Wilder's report is as follows:

The ovarian growth measures 3¼x2½x1½ inches. The surfaces are smooth, lobulated and surrounded by a connective tissue capsule that is firmly adherent to the underlying tissue. The tissue cuts with considerable resistance, has a pinkish, flesh-colored appearance and is firm throughout, no areas of necrosis or caseation being found.

Sections made from different parts, including both periphery and center, had the same general appearance. They consist entirely of connective tissue fibers and cells, in some places the former predominating, in other places the latter. The most notable feature of the cellular material is that it is in all stages of fatty metamorphosis. Blood vessels are present in moderate number, and apparently have normal walls. I am unable to find anything suggestive of ovarian tissue in the specimen examined.

Sections from the stricture of rectum show nothing but a dense mass of adult fibrous tissue. Very little cellular material is seen. The vascular supply is poor, but where present the vessels have well-formed walls. No evidence of degeneration can be found.

Sections from the cardiac end of the stomach show an advanced stage of interstitial gastritis, and an enormous increase of connective tissue is seen, which has deeply penetrated the muscular coat. A marked increase of interstitial tissue is seen between the tubules, which have themselves undergone extensive atrophic changes. Sections taken near the pylorus have a similar appearance. Sections from the pancreas show a marked interstitial pancreatitis, the trabeculæ being greatly thickened and the cells apparently suffering from pressure atrophy. The omentum also shows a marked increase in fibrous tissue, and the lymph nodes enclosed in it show hyperplasia of lymphoid cells, with an increased amount of connective tissue in the trabeculæ.

POINTS OF INTEREST.

The points of greatest interest in connection with this case are:

1. The rareness of the disease.
2. The failure to generally recognize and to fully describe it on this continent, though it has been long and well known abroad.
3. The pathognomonic sign—inability to unite a shrinking peritoneum once divided during the course of an operation, which, so far as I am aware, I am the first to observe and describe.
4. The essential chronicity of the disease, as indicated by the long-standing symptoms, otherwise unexplained, and by the shrinking and retraction of the peritoneum at the first operation, sixteen months prior to her death, which proved the previous existence of the malady, and that it was not directly or indirectly the result of the operation.
5. The great importance of covering all denuded surfaces when before or during an operation chronic adhesive sclerosing peritonitis is diagnosed.
6. The characteristic subperitoneal connective tissue hyperplasia which is the pathologic feature of the disease.
7. The shrinking or contraction of the peritoneum caused by it, the clinical feature.
8. The possible significance of a somewhat similar pathologic process taking place in the skin coincident with unusual gastrointestinal symptoms otherwise unaccounted for.
9. The possible diagnostic value of this syndrome.
10. The danger of serious sequelæ incident to its surgical treatment.

A STUDY OF GOUT.*

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That the pathology of gout has not kept pace with the lines of distinction that have clinically been drawn, is much to be regretted, but we do know that it is the fibrous element which is most affected in chronic rheumatism, the synovial membrane with degeneration later on in the cartilage and bone in arthritis deformans, and the kidneys and blood primarily in gouty affections causing deposits of urates in the joints. If one should say that it was the uric acid in excess in the blood, in the form of urates, that was the cause of gout, he would very rightly be met with the assertion that there were other diseases with excess of urates in the blood and which did not have the manifestations of gout. A similar wrong conclusion would be to attribute the cause of arthritis deformans to micro-organisms, for it is known that the investigators do not agree in the description of these organisms and that they have been found in other diseases, and so far inoculation has failed to reproduce the disease in animals. McCrae of Johns Hopkins, in a recent excellent paper on arthritis deformans, says that could we determine a definite organism to be associated with the disease, the matter is settled. In his series of 110 cases of arthritis deformans he has never succeeded in obtaining any results from cultures. In reference to the association with previous gonorrhea, he reaffirms the established fact that the disease is very uncommon among the colored race, among whom gonorrhea is almost a general occurrence. While the whole question must as yet be left open, he is of the opinion that the evidence seems to point to the infective theory.

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* Read before the Medical and Surgical Society of Washington, D. C.

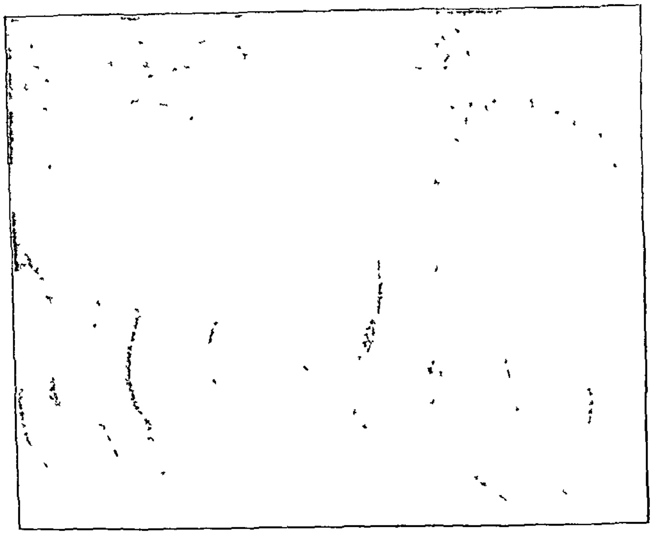

Fig. 1—Gouty hands.

The clinical pictures of rheumatism, gout and arthritis deformans are fortunately so often clearly presented that a pathologic consideration of the anatomy of the parts is not necessary. When our vis-a-vis at cards can chalk down the score with his knuckles, we do not need any further demonstrations to tell us the party is suffering from chronic gout. We have all seen, as Niemeyer writes, such cases where the diagnosis was strongly supported by the experience of the patient. The patients themselves have not only remarked that they could expose themselves to catching cold with impunity, while the return to careless diet and the use of beer and wine always made them worse, but they also observed that anti-rheumatic treatment did not improve their case.

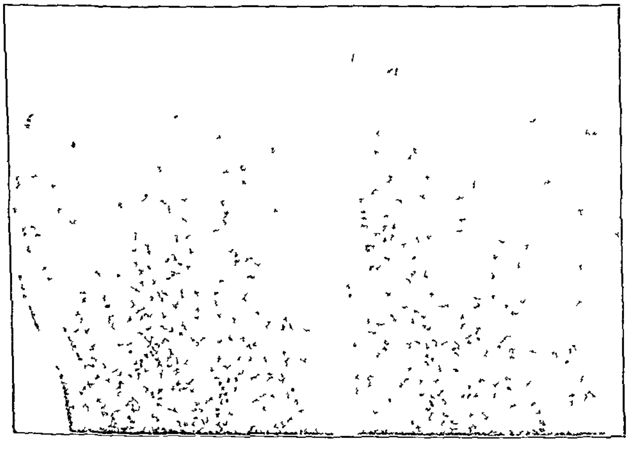

Fig 2—Radiograph of gouty feet.

A recent case which is very apropos in this connection had been diagnosed before entering Garfield Hospital as arthritis deformans, and so far as the name goes, it is a case of deformed joints; but when one considers the history and looks at the joints pathologically and fluoroscopically he is impressed with what marked distinctions can be drawn between this case and chronic rheumatism and arthritis deformans. The age, sex and mode of life of the patient are first to be considered. He has tried to get all out of life he could in a short time; has disregarded all sensible and rational ways of conserving his bodily vigor and has choked and engorged his system with the products of faulty metabolisms, and has burnt the candle early and late at both ends. His kidneys, as nearly all these cases show, are considerably hardened, and this process of connective tissue sclerosis extends to other organs besides the blood vessels and heart. Outside of the tophi being absent from the ears and eyelids, the case is peculiarly characteristic with its large deposits on tarsophalangeal and carpophalangeal joints, with also enormous incrustations around the olecranons. What clinched the opinion in this case outside of the fluoroscopic view, which showed permanency to light of the deposits in contradistinction to the darkened areas in arthritis deformans, were the finding of the crystals of urate of soda in the joints. A comparison of the radiographs of the normal joint and those of gout and of arthritis deformans (taken through the courtesy of Walter Merrill, M.D.), will show the difference in deformity and destruction that goes on in these diseases.

It might be said in gout that the deposits *per se* do not destroy the joint or articulation, but bring about deformity or disarticulation from the pressure of the increasing deposits in and around the joint. In chronic rheumatism of the severest type, "we are often astonished how little in appearance the joint may be altered" (Osler), whereas, in arthritis deformans, a most extensive destruction of cartilage and bone, with marked deformity, often follows.

In considering gout there are many diseases that simulate it as regards the affections of the joints. The sex, age, habits and inheritance, as I have said, will often separate the case from chronic rheumatism, arthritis deformans, gonorrheal or tubercular arthritis, Charcot's tabetic knee, or that of syringomyelia and other arthropathies of neuropathic origin. Garrod found that "in 500 cases of arthritis deformans, 411 were in women"; others give the percentage as high as 85, and in women who had passed the menopause, with no antecedent history of intemperance, indolence or luxury. Monro, in the same disease, has noted that "the hands suffer more than the feet," and symmetry is often characteristic; that the knee, shoulder, hip, hands and spinal column, etc., are apt to be attacked in the order named. In the 110 cases which have been tabulated from Dr. Osler's wards by Dr. McCrae, he does not find great disproportion between the sexes; also he remarks that the affection, he believes, is not so symmetrical as the writers are very fond of emphasizing. He lays stress on the contrast between the alcoholic history in gout and arthritis deformans, and the striking disparity between the involvement he found of the fingers and of the toes—the great toe being affected in only 6 cases of this large series of arthritis deformans.

We find that in 95 per cent. of cases of gout, the disease originated in the metatarsophalangeal joint; that fermented liquors with a full stomach have been the shibboleth of the sufferer, and that a good proportion of cases have to thank their sires for vitiated diathesis of gout. Dr. Darwin, an English physician of great note, affirms that he never saw a case of gout where the person did not drink freely of fermented liquors. such as beer and wine.

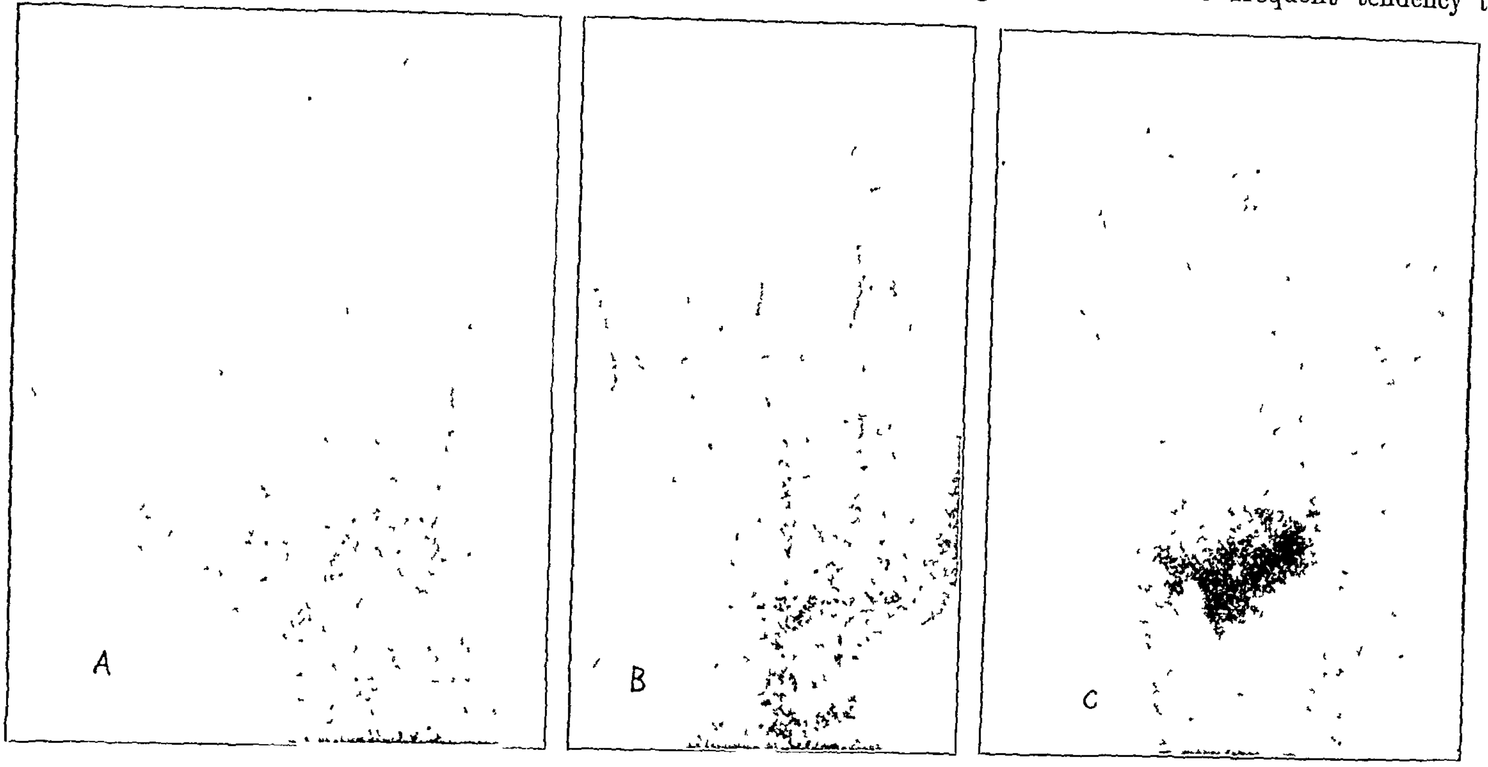

Fig 3—Radiograph of (A) gouty, (B) normal and (C) arthritis deformans hands

Heberden's nodes, which are described by most authors—some considering them rheumatic, others gouty—are small rounded growths arising principally from the phalanges of the fingers, and produce considerable deformity of the joints, without, as a rule, exciting much pain. They contain no mineral constituents, but are made up principally of fibrous tissue, and are found mostly, as Lyman says, in elderly women. Heberden believes that they have no connection with gout, being found in persons who never had it; whereas, the gouty, crab-eyed indurations are rough and uneven and are composed of urates. Levison of Copenhagen draws a marked difference between gout and arthritis deformans. Gout has a strong hereditary predisposition (77 per cent.); it occurs more in the males, and in those who have used beer or strong wine. Workers in lead have a decided tendency (33 per cent.), and dyspeptic and renal colic often precede the acute attacks of gout. The urine is often found deficient in urea, and uric acid and hyaline and granular casts are not unusual. Tophi are found on the ears, eyelids and joints. The Roentgen photographs of the foot or hand show the clear lines between the bones, and even the large deposits of urate of soda are quite invisible. In arthritis deformans the articulation affected by the disease, even if it be not developed far enough to cause stiffness or enlargement of the joint, has lost its clear, transparent appearance and is almost black in color.

To draw a line sharply between acute gout and rheumatism is often very difficult, especially if the gouty pains occur simultaneously in many joints and are associated with considerable pyrexia. A consideration of the habits and occupation of the individual, the sex and age, the estimation and comparison of the urea, uric and phosphoric acids output, as suggested by Futcher, and the test as recommended by Garrod for uric acid in the blood, may be of great value. The higher temperature curve, with the drenching acid sweats, is in marked contrast to the rather low or afebrile temperature, with a greater and more frequent tendency to fluctuation between great agony and absolute well-being. Aretæus has known the Olympian race to be won by those who were in the throes of gout the night before.

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A STUDY OF A CASE OF GREEN URINE,

RESULTING FROM THE ADMINISTRATION OF METHYLENE BLUE IN A PROPRIETARY REMEDY.

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While cases of green urine are by no means unknown, the circumstances surrounding a recent case are so much out of the ordinary that they will interest the general practitioner. On the other hand, the report will not be without scientific interest and value, since one of the foremost American text-books on diagnosis, in speaking of this condition, dismisses the subject with the statement that, "while green urines have been described, the cause of the color has not been definitely ascertained."

THE CASE REPORTED.

On Dec. 1, 1903, there was submitted to me for examination about 120 c.c. of urine of a bright grass-green color, and possessing a peculiar aromatic odor, not unlike that of oil of juniper or wintergreen. The patient was a woman, 76 years of age, who had been for a long time troubled with sciatic rheumatism, for which she had tried numerous remedies, but with little permanent beneficial effect. She first noticed the passage of colored urine on the morning of November 27, the day after she had begun taking some pink-colored pills known as "Magic Regulators," which had been sent to her as a sample by a patent medicine concern located at Jackson, Mich. With the pills were directions to take one before each meal, followed by a glass of hot water; and there was also enclosed a circular reading as follows:

"A simple test: To prove the action of our 'Magic Regulators' on the kidneys, the organs which in rheumatism are always diseased and fail to do their work, allowing the poisonous acids to accumulate and lay the foundation for a long and painful run of rheumatism, watch the color of the urine voided. If it assumes a light-blue or greenish color, you may rest assured that the 'Magic Regulators' are doing their work."

In all, 14 of the pills were taken, as directed, and during this time the patient continued to pass urine of practically the same color as the sample submitted for examination. During this time the patient's diet consisted largely of bread, butter, milk, tea, meat, and potatoes. The vessel into which the urine was voided was clean, as was also the bottle in which the urine was sent for examination.

THE LITERATURE OF GREEN URINE.

Instances in which green urines have been passed have been known from very early times. A comparatively large number of cases are to be found reported, particularly in French literature. Within the last few years several papers on this subject have appeared in Scottish and English journals, but American literature seems to be singularly lacking in this regard.

Braconnot[1] describes two cases of blue urine, from which the color could be removed by filtration. Hassall[2] states that the above blue color was due to the presence of particles of indigo deposited in decomposing urine. Hughes[3] reports a case in which blue urine was passed from the bladder. Garrod[4] records a case of a child passing green urine after sucking a cloth dyed with indigo. Fletcher[5] reports a case of blue urine being passed after methylene blue had been taken unintentionally. Good[6] reports a case in which the blue color was diagnosed as indigo, although the patient was shown to have taken methylene blue.

Dr F. Parkes Weber,[7] in an article entitled "The Occurrence of Green or Blue Urine and Its Most Frequent Cause," describes several cases in which green or blue urines were passed, and gives a detailed account of the various tests by which methylene blue can be recognized in the urine, noting especially the differences in the reaction of an ordinary solution of methylene blue and a solution of methylene blue in urine.

Stockman[8] reports two cases in which blue or green urine was passed, and which on examination was found to be due to methylene blue, which in one case had been given to the patient as a practical joke, in the form of pilules densely coated with pink-colored sugar. For purposes of comparison, the urine of a third person was examined after two grains of methylene blue had been administered intentionally. Stockman states that the reactions given by the urine varied even in the cases in which methylene blue was known to have been administered. In the first case, when the fresh green urine was shaken with chloroform or amyl alcohol a blue color was extracted, leaving the urine a deep yellow, and he explains the green color of the urine as being due to the mixture of these two colors. At times the urine passed by this patient was dark blue, and at other times bright green. Stockman concludes that when methylene blue is taken internally a blue and a green pigment, probably a yellow pigment, and probably also a colorless chromogen appear in the urine, and that these yield reactions and spectra which are slightly different. In Stockman's second case, the patient, who was suffering from a cystitis, passed one specimen of greenish urine. The coloring matter was insoluble in chloroform, amyl alcohol, ether and benzol, and was decolorized by liquor potassii. He is unable to state either the source or the nature of the pigment.

Dun and Douglas[9] report what they state to be probably the first recorded case in which methylene blue was made use of to delude the patient into a belief in the efficacy of the remedy administered. In this case the remedy was taken for chronic rheumatoid arthritis by a lady 65 years of age, being administered in the form of capsules, sent to her as samples by an American concern. The patient was instructed to observe the urine for evidence of the fact that the remedy was taking effect, it being stated that the urine would come to be of a decided bluish tint. A sample of the urine was examined by Dr. Douglas, who decided that the coloration was due to methylene blue, which had been added to the patient's medicine in small amounts. None of the capsules could be obtained for examination. The urine was of a fine, deep, transparent green, with a slight bluish tinge, and possessed the odor of anise. It decomposed more slowly than usual, remaining free from disagreeable odor, at room temperature, for over a week. The results of a number of tests are given, which make it practically certain that the pigment was methylene blue.

EXAMINATION OF THE URINE.

The sample examined in this case consisted of about 120 c.c. of a particularly brilliant grass-green color, with the peculiar aromatic odor above described. It was slightly acid and had a specific gravity of 1020. Portions exposed to the air for some days did not change color, and underwent decomposition very slowly. One ounce was poured into a sterile bottle, and has been kept at room temperature for three weeks and is still slightly acid, and without any marked odor of decomposition. Portions to which were added mixed cultures of colon and typhoid bacilli and various other germs obtained from water, were decolorized after being kept for several days at room temperature, but the green color could be restored on shaking the tube. The pigment was found to be insoluble in ether; and on treating the urine with both dilute and strong hydrochloric acid, no change in color was observed, even on boiling. A few drops of a 10 per cent. solution of sodium hydroxid decolorized the urine, the green color being restored on neutralization with hydrochloric acid. Ether failed to take up the pigment, however, at all stages of this reaction. The urine was unchanged in color on boiling, but filtering slightly decreased its intensity, owing to some of the pigment being taken up by the paper. Both chloroform and amyl alcohol, when shaken with the urine, removed the green color completely, leaving a bright golden yellow. On evaporating the chloroform and amyl alcohol solutions of the pigment to dryness over the water bath, a greenish substance was obtained, which, on treatment with strong sulphuric acid, became brown and brownish yellow, and on dilution, at first greenish and finally was decolorized.

About 25 c.c. of the urine was then evaporated to dryness over the water bath. As the pigment dried it changed in color from green to light brown, but on washing with alcohol the green color was restored, and the pigment passed into solution. The residue was washed several times with alcohol, and the washings carefully evaporated to dryness at about 60 degrees. A portion of the solid pigment obtained on evaporating the alcoholic extract was treated with strong sulphuric acid, which changed it to a brown color and decolorized it on dilution. A dilute water solution of methylene blue when evaporated to dryness and treated in the same way, gave a similar reaction. The remainder of the green pigment obtained from the alcoholic extract was taken up with water, in which it was readily soluble. This water solution was of a deep bluish green color, similar to the original urine, but slightly darker, it being more concentrated.

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[1] Ann. de Chimie et de Physique, 1825, xxix, p. 252.

[2] Trans. Royal Soc., Lond., 1854, p. 144.

[3] Guy's Hosp. Rep., Lond., 1856, vol. ii, 3d series, p. 56.

[4] Trans. Clin. Soc., Lond., 1895, xxviii, pp. 307-309.

[5] Trans. Clin. Soc., Lond., 1899, xxxii, and Brit. Med. Jour., 1898, ii, 1686.

[6] Lancet, Lond., 1901, i, 1535, and ii, 617.

[7] Lancet, Lond., 1901, ii, 774.

[8] Edinburgh Med. Jour., 1902, liv, 115.

[9] Scot. Med. and Surg. Jour., xiii, 142, 1903.

Portions of the original urine and of the aqueous solution of the pigment obtained as above were then treated with a few drops of Weingärtner's reagent (tannin, 25 g.; sodium acetate, 25 g., and water, 250 c.c.), which precipitates basic anilin dyes. A fine green precipitate was obtained in both instances, the filtrate from the urine being of a bright golden yellow, similar to highly colored urine, and that from the aqueous solution of the pigment being clear. This reagent, therefore, completely removes the pigment from its solution in water and urine, and indicates it to be a basic anilin dye. The precipitate in both instances dissolves readily in alcohol, giving to it a light bluish-green color. The reactions given by the aqueous solution of the dye obtained as above were similar to those given by the urine itself.

Moderately dilute solutions of the pigment extracted from the urine with amyl alcohol, and of methylene blue in amyl alcohol, when examined with the spectroscope, showed in both cases a single, well-defined band in the red at a considerable distance from the sodium line. The urine also, when examined with the spectroscope, showed this same absorption band, but less markedly.

EXAMINATION OF THE REMEDY TAKEN.

A sample box of the pills, similar to those taken by the patient, was obtained. They were bright pinkish red, and weighed about 3 grains each. On removing the firm outer coating, all but one were found to be made up of a dark bluish-green substance, which, when pulverized, dissolved readily in water, alcohol and amyl alcohol—completely on boiling—and giving to these solvents a deep blue color. The remaining pill contained a grayish-yellow substance, which burned readily, leaving a small quantity of grayish ash.

The content of one of the first-mentioned pills was dissolved in about 500 c.c. of distilled water. Treated with Weingärtner's reagent, this solution gave a blue-black precipitate and a slightly yellowish filtrate. On treatment with concentrated hydrochloric acid no change was observed. Sodium hydroxid decolorized the solution to a pinkish violet on standing. A solution of chemically pure methylene blue made to the same color as the pill solution, gave exactly the same reactions. The aqueous solution of the dye obtained from the pill, when treated with strong ammonia, became green on heating. The methylene blue solution, when treated in the same manner, was unchanged. Potassium bichromate changed both solutions to a light wine red.

Chloroform removed the color completely from the pill solution, holding it as a light blue. The color was also removed in the same way from the solution of methylene blue, but was almost immediately changed to a yellow. A solution of methylene blue, to which a small amount of chemically pure methyl green had been added, was then treated in the same way. The color was completely taken up by the chloroform and held as a light blue, of the same shade as that obtained from the pill solution, the methyl green having evidently prevented the methylene blue from being decolorized. Chloroform took up the color from a solution of methyl green, but soon decolorized it, the liquid above being colored a wine red. The same solutions were shaken with ether, but without change in any case.

A piece of the solid dye from the pill was treated with concentrated sulphuric acid in a porcelain capsule. The color was changed to a bright grass green, with a yellowish tinge, becoming blue, and finally blue violet on dilution. Solid methylene blue, treated in the same way, gave a bright green, becoming blue and then blue violet on dilution. Solid methyl green gave a dark orange red to carmine, on dilution becoming brown, then olive green, then blue green, and blue.

The solution of the pill and the solution of methylene blue, when treated with picric acid and glycerin, gave a blue-black precipitate and a bluish-green filtrate, of exactly the same shade in both cases. The spectroscopic appearance of the pill solution corresponded exactly to that described above for the solution of methylene blue.

Strips of cotton cloth were then dyed in the solution of the pill, in the solution of methylene blue, and in a solution of methyl violet of approximately the same strength, for the purpose of comparison. After having been allowed to dry in the air over night, the following tests were applied and results obtained as recorded below. The strip dyed in the methylene blue solution was of exactly the same shade as that dyed in the solution of the pill.

TABLE OF COMPARATIVE TESTS.

Treated with.	Pill Solution.	Methylene Blue.	Methyl Violet.
HCl.	Fiber nearly decolorized; liquid blue green.	Fiber nearly decolorized; liquid blue green.	Fiber brownish yellow; liquid amber yellow; violet not restored on dilution.
H_2SO_4.	Fiber and liquid green.	Fiber and liquid green.	Fiber and liquid brownish yellow.
NaOH.	Fiber changed to blue violet.	Fiber changed to blue violet.	Fiber changed to pale reddish violet.
NH_4OH.	Fiber not much changed; somewhat paler.	Fiber not changed.	Fiber changed to red violet; then almost decolorized.
HNO_3.	Green spot.	Green spot.	Green spot surrounded by a bright yellow ring.
Alcohol.	Greenish blue color extracted.	Greenish blue color extracted.	Violet color extracted.

It will be noticed that, as a whole, the tests of the aqueous solution of the material obtained from the pill correspond closely to those given by the aqueous solution of methylene blue, made to the same color. The solid dye treated with sulphuric acid gave a reaction corresponding almost exactly to that of chemically pure methylene blue. There was at first a slight yellowish tinge, resembling the first reaction of malachite or benzaldehyd green, although the end reaction was the same as that of methylene blue. The solid dye obtained by evaporating the various solutions of the pigment, both from the pill and the urine, when treated with strong sulphuric acid, did not give the characteristic bright green color, changing to blue and violet on dilution, given by solid methylene blue; but it was noted that when solutions of pure methylene blue were evaporated to dryness, the residue also failed to respond to this test in the characteristic manner, but behaved the same as the residue from the pill and urine.

The reaction of the pill solution with chloroform is exactly similar to the chloroform reaction of a solution of methylene blue, to which a small amount of methyl green had been added. The possibility of the pill containing small amounts of an anilin green was therefore considered. The dye contained in the pill is entirely soluble in amyl alcohol, and is completely removed from its aqueous solution by this reagent. Amyl alcohol also completely removes it from the urine. It does not change to violet in any of its solutions on heating to 100 degrees C., and consequently, neither the pill nor the urine contains methyl green or its allies, these being insoluble in amyl alcohol, and changing to methyl violet on heating to 100 degrees C. The aqueous solution of the pigment obtained from the urine corresponds very closely in its reactions to the aqueous solution of the pill, the small differences noted being probably due to the presence of urinary salts and coloring matters in the first solution. The spectroscopic examination of the various solutions of the pigment and the reactions to various reagents of the fibers dyed in the same, are both positive for methylene blue. There is, therefore, little doubt that the pills which this patient ingested consisted entirely of a somewhat impure preparation of methylene blue, the impurities consisting very probably of small amounts of basic anilin greens, either malachite or helvetia green.

In regard to the pill which was found to be made up of the yellowish vegetable substance and which can not be told by the external appearance from the pills containing the dye, little can be said, nor is its composition of any great importance in connection with this paper. It is probable that the patient received a larger number of these pills than would be indicated by their proportion in the sample box examined by the writer, that is, that the box examined did not contain a representative sample of the remedy. The pills last described evidently contained the true "remedy," if such it may be called, and were undoubtedly possessed of a mild cathartic action, since the patient states that the remedy had this effect.

A study of the literature shows that blue or green urine is occasionally passed by apparently healthy individuals—especially by children—without there being obtainable any history of the ingestion of an anilin dye. Practitioners unfamiliar with the appearance of methylene blue urine are apt to attribute the urinary pigment to the presence of indigo blue, derived from indican fermentation. Practically all cases, however, of green or blue urine reported in the literature have been due to the ingestion of some anilin dye—in most cases methylene blue. Especially is this the case in those instances in which the patient has complained of no other untoward symptom save the pigmented urine. Cases in children almost invariably result from eating candies highly colored with anilin compounds. Since undertaking this investigation, I have been told of a case in which a child passed a bright red fluorescing urine after having eaten candy colored with eosin.

The question may be raised, why was the urine green in this case, rather than blue? Various workers have shown, however, that the urine is frequently green after a dose of methylene blue, especially the first voided after taking the dye. It was noticed in this case that the urine, after the pigment was removed, was of a bright yellow, and it is not unlikely that this combined with what would otherwise have been a bluish tinge to give rise to the peculiarly brilliant green of this specimen.

In regard to the cause of the aromatic odor of the urine, and of its marked keeping power, nothing definite was ascertained.

COMMENTS ON THE CASE.

The present case is of especial interest from a practical standpoint, inasmuch as it brings to light what seems to be a new method employed by the quack to delude his patient into the belief that the so-called remedy is in reality reaching the kidneys and exerting its remedial effect on them. That this is the sole reason for administering the dye, is evidenced by the fact that the pills containing the substance supposed to be a vegetable purgative are of exactly the same external appearance as those containing the dye.

It is significant that in the case reported by Dun and Douglas, the patient sent to an American firm for a "cure" for chronic rheumatism, and that the urine passed possessed remarkable keeping powers and a peculiar aromatic odor, facts which were both especially noticeable in this case. The directions accompanying the remedy were practically the same as in the present case, and in both instances the medicine was sent as a sample.

It is probable that many cases of blue and green urine will follow the indiscriminate distribution of the above-described "remedy," and will be brought to the notice of physicians, particularly those of southern Michigan and neighboring states. In such cases it will be well to bear in mind the fact that both green and blue urines in nearly every case result from the ingestion of some anilin dye—particularly methylene blue—and to inquire whether the patient has recently taken any proprietary medicine.

A REPORT OF TEN CASES OF PNEUMOTHORAX OCCURRING IN PULMONARY TUBERCULOSIS.

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Pneumothorax as an accident in or complication of pulmonary tuberculosis, occurs usually in but a small percentage of cases. According to West this percentage is 5. Eichhorst found 5 per cent in 390 cases, Gutmann, 4.2 per cent in 2,200, while Weil found 10 per cent in 355 cases. It has been the universal experience that pneumothorax is usually total, that is, that the entire lung collapses and contracts up against the spinal column, thus separating the visceral and parietal pleuræ by a considerable air space, and that partial pneumothorax in which but a part of the lung collapses, and the rest remains in place, due to adhesions or other causes, and but a portion of the pleuræ separate to form a cavity, is much less common. Powell and Whitney state that the total form is the rule, and in Weil's series of 36 cases all but four were of this type. Whitney states in the "20th Century Practice of Medicine," that in partial pneumothorax the symptoms are usually mild, very little general disturbance or discomfort being caused.

Out of 41 deaths occurring at the U. S. Public Health and Marine Hospital Service Sanatorium for Tuberculosis at Fort Stanton during the nine months from Sept. 1, 1902, to May 31, 1903, 9, or 22 per cent., revealed the presence of pneumothorax at autopsy, and at time of writing there is a case of total pneumothorax of the right side still living, but in a very exhausted condition. This makes 10 cases in all during the last 9 months, and of these 5 were total and 5 were partial.

Four of the partial cases ended fatally as the direct result of the accident. In the fifth the lesion was unsuspected during life and was found at autopsy. It had evidently existed for some considerable time. Four of the total cases terminated fatally and one, as previously stated, is still living, but in a very weakened condition.

This large percentage of cases of pneumothorax, which is far in excess of the general rule, the large percentage of partial cases, and the fatality of the partial as well as the total cases, have caused me to consider the series of general interest and their brief report desirable.

CASES.

Case 1.—Aged 25 years, admitted June 23, 1902. Both lungs were found involved as shown by dulness, moist râles, friction sounds, and bronchial breathing. After admission his cough, expectoration, and dyspnea were much lessened. His night-sweats ceased and he gained in weight. The progress of the disease seemed arrested. September 16, two months and twenty-four days after arrival, while walking leisurely a few feet from his tent, he was suddenly seized with a severe pain over the cardiac region and urgent dyspnea. His face became ashy and he showed cyanosis. Beads of perspiration stood out on his forehead.

Examination.—The right side of the thorax was found more prominent than the left, and the intercostal depressions obliterated. On auscultation distant bronchial breathing was heard over the right and large bubbling râles and loud grating friction sounds over the left lung. His condition was continually aggravated by annoying fits of coughing, and he died an hour and a half later from shock.

Autopsy revealed a total pneumothorax of the right side. The right lung was collapsed and contracted up against the spinal column and near its apex was an ulcerated opening 2 mm. in diameter, which connected almost directly with a bronchiole. Tubercles were scattered throughout the lung. The pleural cavity was filled with air and contained a trace of purulent fluid. The left lung was adherent to the thoracic wall throughout, and contained a small cavity in the apex and tubercles scattered throughout both lobes.

Case 2.—Aged 38 years, admitted Oct. 29, 1900. Both lungs were found considerably involved. Shortly after arrival his cough and dyspnea improved and his night-sweats ceased. September 16, 1902, 1 year, 10 months and 18 days after arrival, he had a pulmonary hemorrhage of five fluid ounces. At midnight September 17 he was found dyspneic, with a rapid small compressible pulse. He stated the condition had been coming on for six hours. The condition continued, he became cyanotic, and died September 19, apparently of asphyxia.

Autopsy.—The base of the left lung was found retracted, and the pleural cavity contained air at this point, thus creating a space the size of an orange, which contained a very small amount of serous fluid. No opening through the pleura was found. Both lungs contained tuberculous lesions throughout.

Case 3.—Aged 27 years, admitted Oct. 4, 1901. Both lungs were found extensively involved. For the next few months he seemed to improve. September 4, 1902, his condition was found to have become complicated by a nephritis as evidenced by edema of the face and limbs and the presence of albumin and casts in his urine. His nephritic symptoms became gradually worse and more distressing. During the night of Oct. 5, 1902, one year after arrival, he was found lying on his right side dyspneic and cyanotic with a rapid weak pulse. He complained of something having broken in his right side. His right chest was seen to be bulging. He died of shock an hour and ten minutes later.

Autopsy.—The right half of the thorax was found prominent and hyperresonant. On section the right pleural cavity was found filled with air and its lung collapsed against the spine, except at the apex and base, where it was held by firm adhesions. This lung had a cavity 5 cm. in diameter in the apex and tubercles and areas of infiltration scattered throughout. The heart was drawn considerably to the left. On the right side the upper lobe was adherent to the thoracic wall and contained a large cavity. The lower lobe was studded with tubercles.

Case 4.—Aged 44 years, admitted Sept. 29, 1902. Both lungs were affected throughout. October 8, 9 days after arrival, while sitting quietly on the hospital porch he suddenly became dyspneic, and complained of pain in the left side.

Examination.—The left side of the thorax was found prominent, the intercostal spaces effaced, the respiratory movements hardly noticeable, tactile fremitus absent, the percussion note hyperresonant over the normal lung area, precordia and to the costal margin below; the breath sounds were feeble, distant and bronchial, with an amphoric ring and accompanied by moist amphoric clicks, gurgles and rhonchi. The heart sounds were indistinct on the left, but well heard to the right of the sternum. On the right the respiratory movements were exaggerated. He at first occupied the right lateral decubitus, but on the second day changed to the left. For the next three weeks he improved, although his pulse remained weak. Then he grew gradually weaker and died November 20, one month and twelve days after the onset, of exhaustion.

Autopsy.—On opening the left pleural cavity air escaped with a hiss. The left lung was carnified and compressed against the spine. The pleural cavity was half filled with a greenish-yellow purulent fluid, the heart was drawn to the right and the diaphragm on the left bulged into the abdominal cavity. Both lungs were studded with tubercles throughout and contained infiltrated areas in the apices.

Case 5.—Aged 50 years, admitted Nov. 27, 1902, complaining of cough, copious expectoration, considerable loss in weight, weakness, dyspnea and insomnia. He stated that the dyspnea came on suddenly about six weeks before while aboard his ship and that it was accompanied by pain in the left side and general distress.

Examination.—Emaciation, cyanosis, mucous membranes pale, skin dry and inelastic, and all the symptoms of a complete pyopneumothorax of the left side were present. The succussion splash and *bruit d'airain* were both demonstrated.

Over the right lung the percussion note was dull anteriorly from apex to nipple, crackling râles and rhonchi were heard throughout, and bronchial breathing over the upper lobe. The pulse was small and frequent. His hemoglobin percentage was 70, as found by Tallquist's method. December 2 he had an aggravation of the dyspnea and general distress. For the next five days he was delirious most of the time, and died December 7.

Autopsy.—The postmortem showed edema of extremities, ulcers in ileum and appendix, contracted kidneys, and increase of connective tissue in liver, spleen and kidneys. The diaphragm on the left extended down to the ninth rib in the nipple line and to the tenth rib in the anterior axillary line. On opening the left pleural cavity air escaped with a hissing sound. The lung was collapsed and carnified up against the spine. The pleural cavity contained 1,000 c.c. of greenish yellow purulent fluid. On section a small cavity was found in the apex of the lung. The right lung was adherent to the thoracic wall by many strong adhesions; the upper lobe was almost entirely consolidated and the two lower lobes were studded with tubercles and infiltrated areas. The heart was drawn to the right. It was dilated and filled with currant jelly clots. The mitral valves were sclerotic, contracted and incompetent.

Case 6.—Aged 29 years, admitted July 6, 1902. Both lungs were extensively involved, especially the left. He developed a fistula in ano, which was operated on with chloroform anesthesia Sept. 25, 1902. Jan. 6, 1903, he was seized with sudden severe pain in the left chest and complained that something seemed to have given way on that side. He was dyspneic, pulse was quick, weak and frequent. He was suffering from shock. He then improved for a few days and felt better, especially when sitting up in bed.

Examination.—The left costal margin was more prominent than the right. Vocal fremitus was diminished over the left lung. The epigastrium was tender on palpation. On auscultation amphoric breathing was heard over the left apex and down to the second intercostal space. From the second intercostal space to the nipple were bronchial breathing and crackling and musical râles and friction sounds. From nipple to base there were fair-sized moist râles and the breathing was bronchovesicular. Vocal resonance was present over all parts of left lung. A *to-and-fro shuffling murmur* was heard at the cardiac apex. Pulse was small and of low tension. January 21, he was again seized with a sudden intense pain in the left axilla, accompanied by dyspnea, shock and unconsciousness. The respiration became slow and labored, the pulse was rapid and weak. He occupied the left lateral decubitus. There was absence of respiratory movement over the left lung. The patient became cyanotic and died 45 minutes later of shock.

Autopsy.—The left pleural cavity was found about one-third filled with air. The left lung was collapsed in the middle, but held firmly at the base and apex by adhesions. The pleural cavity, in addition to air, contained a small amount of serous fluid. The lung on section contained a small cavity in each lobe. The right pleuræ were adherent over the greater part of their surface and the right lung was studded with tubercles. On removing the heart the visceral and parietal pericardia were so extensively adherent to each other that they seemed to form a part of the heart wall, leaving thus no pericardial sack at all. The abdomen contained a small amount of a serofibrinous fluid. The liver was nutmeg in appearance and Glisson's capsule was adherent to the diaphragm. The spleen and kidneys showed passive congestion and the loops of the small intestine were adherent to each other.

Case 7.—Aged 37 years, admitted June 2, 1902.

Examination.—This showed considerable involvement of both lungs, and tuberculous ulcers in the larynx. His urine gave the diazo-reaction. He had daily evening pyrexia, with a subnormal morning temperature. During his stay at the sanatorium he had a persistent, troublesome diarrhea, and during the last three months was troubled with emesis. He died Feb. 24, 1903.

Autopsy.—A large cavity was found in the upper lobe of the left lung, and tuberculous infiltration throughout the lower lobe. On the right side the two layers of pleura, the visceral and parietal, were adherent to each other over their entire surface except for an area about 10 cm. in diameter located laterally near the lung apex. At this point the two layers of pleura formed the wall of a cavity the size of an orange. The cavity was filled with pus, and opening into it was an ulcerated perforation 5 mm. in diameter, which connected with a bronchiole. On section the lung was found to contain many small cavities and scattered areas of infiltration. The liver was large, pale and adherent to the diaphragm and parietal peritoneum. The lower jejunum, ileum and cecum contained many tuberculous ulcers.

Case 8.—Aged 32 years, admitted Aug. 19, 1902. Examination showed involvement of an advanced stage in both lungs. During the next few months his general condition improved very considerably. His cough and expectoration became much less. He gained 8 pounds in weight, and was doing so well that his ultimate recovery was expected. March 14, 1903, while walking, he was seized with an attack of dyspnea. He was put immediately to bed and had another similar attack that same evening. For the next few days he continued somewhat dyspneic and cyanotic, with a rapid, weak pulse and some pain on the left side in the region of the nipple.

Examination.—Large moist râles and friction sounds were heard over both lungs. He became gradually weaker, and died March 23, 1903.

Autopsy.—It was found that the lower lobe of the left lung had retracted, forming an air space the size of patient's fist at the base of the left pleural cavity just above the diaphragm. The cavity contained no fluid. The lung was bound to the thoracic wall by many firm adhesions, increasing in number and strength from base to apex. In the apex was found a consolidated mass of firm scar tissue the size of a small apple. Tubercles were scattered throughout both lobes. On the right side the lung was held firmly adherent by old pleuritic adhesions over its entire surface. The upper lobe contained many band-like masses of firm fibrous tissue. The lung contained tubercles scattered throughout. In the heart both ventricles were filled with white clot, and the arch of the aorta contained a few sclerotic patches.

Case 9.—Aged 40 years, admitted Sept. 2, 1902, giving a history of severe cough, copious expectoration, marked dyspnea, and presence of tubercle bacilli in sputum. There was slight dulness in right apex, fine moist râles in both upper lobes and cogwheel respiration over both lungs. His arteries showed considerable sclerosis. During the next few months he appeared to be improving, as far as his pulmonary condition was concerned, but had several epileptic seizures of the grand mal type, and in addition developed a tenderness on pressure and pain on movement over the second and third lumbar vertebræ, which latter was relieved only by wearing a plaster jacket. March 11, 1903, he complained of a severe pain at the right costal margin in the nipple line. This was accompanied by increased dyspnea. On the following day he again complained of a still more severe pain, but this time located at and above the right nipple.

Examination.—Auscultation over this area revealed large bubbling râles and a to-and-fro rush of air as through a small opening. The acute symptoms, which had been violent, subsided, but the patient became gradually weaker, and died March 28.

Autopsy.—The patient showed emaciation. The heart was filled with mixed red and white clots. The right lung was adherent to the thoracic wall throughout except at the base and over the middle third, where the lung was collapsed, thus forming two cavities of irregular shape, each of which contained about 500 cubic cm. of space. These two cavities were filled with pus and connected by a sinuous canal. The upper one connected with a bronchiole by an opening 1 cm. in diameter. On section the lung itself was found to contain a few tubercles scattered throughout the two upper lobes, whereas on the left the lung seemed free from tuberculous changes.

Case 10.—Aged 25 years, admitted Feb. 6, 1903, very weak and in an advanced stage of pulmonary phthisis, both lungs being involved in their entirety and with excavation in their apices. He had chills, night sweats and remittent pyrexia. Then for a few weeks he seemed to improve. He grew stronger, and felt better generally. During the night of April 16 he was seized with a severe pain in the region of the right nipple. He was dyspneic, cyanotic, and had a rapid, weak pulse. His voice was husky and whispering. He lay on the left side.

Examination.—The right side of the thorax was prominent, and the intercostal spaces effaced. Vocal fremitus was all but absent, and over this side there was a full hyperresonant percussion note extending from the third rib to considerably below the normal upper border of liver dulness. The liver could be felt extending two finger breadths below the right costal margin in the nipple line. The heart was displaced to the left. The *bruit d'airain* was present on combined auscultation and percussion. April 19 the patient was very dyspneic and complained of a feeling of tightness on the right side. Fluid was detected by the percussion note and succussion splash, and 500 c.c. were aspirated and the side strapped. This gave him comparative comfort for several days. During May he had three attacks of hemoptysis, and another one on June 6. At present he is in a very weakened condition, which is rendered so precarious by the small amount of serviceable lung left that an early fatal termination seems inevitable.

SUMMARY.

Etiology.—Of the above series 5 had been at the sanatorium for from 2 months and 24 days to 1 year, 10 months and 19 days, and were doing so well prior to the onset of the pneumothorax that they were considered as rapidly approaching the time when they could be considered arrested cases. Leaving out the case of partial pneumothorax discovered postmortem, and the total case which existed at the time of arrival here, and whose exact time and manner of onset are unknown, the accident occurred at a time when the patient was not exerting himself, with the possible exception of the epileptic, who had frequent severe paroxysms of coughing. In each case the accident occurred at a time of comparative rest. Five of the attacks occurred during the night when the patient was in bed, two occurred while leisurely walking, and one while sitting quietly on a shaded porch. In 9 of the cases there was advanced pulmonary disease, and in but 1, the epileptic, was the lung involvement at an early stage. In all cases the extent of the pneumothorax depended on the strength, location and extent of the pleuritic adhesions if present. In the cases of total collapse of the lungs there were either no signs of adhesions or the torn remains showed that they had been few and weak. The extent and location of the partial pneumothoraces depended entirely on the adhesions and not on the site of the perforation. Perforations were not found through old adhesions, nor through the walls of large cavities, but occurred where the adhesions were young and friable or more commonly absent. Air having gained entrance between the two layers of the pleura, the lung collapsed at that point where the adhesion between the visceral and parietal pleuræ was least, namely, where there were either no adhesions at all and the only resistance to be overcome was the negative pressure of the pleural cavity, or else where there were only such adhesions as could be easily torn.

Morbid Anatomy.—Of the 10 cases, as previously stated, 5 were total and 5 partial pneumothorax; 5 were on the left and 5 on the right side. Of the partial cases 2 were at the base, 2 were about midway between apex and base, and 1 consisted of two cavities, 1 at the base and 1 midway between apex and base. Eight of the cases had fluid in the cavity. In 5 it was purulent, in 2 serous and in 1 serofibrinous, the character of the effusion depending on the exciting organisms and the nature of the pleurisy set up. In the cases of total collapse of the lung, and to a lesser degree in the partial, the heart was found drawn toward the sound side, but not rotated appreciably; the diaphragm on the affected side was much lower than normal, and in the cases where the intrathoracic pressure was great, due either to a valvular conformation of the lung perforation or its closure, and the subsequent collection of effusion in the pleural cavity, it bulged downward with its convexity in the abdomen. The liver descended with the diaphragm and was in right-sided cases found extending from one to several finger breadths below the right costal margin.

Symptoms.—The symptoms of onset in the above cases were very similar, and consisted of an initial intense sharp pain on the affected side, accompanied by urgent dyspnea, general distress, cyanosis, and a rapid, weak pulse. The pain was in 5 cases referred to the nipple region, in 1 to the axilla, and in 1 at first to the costal margin in the nipple line, but later to the nipple, while in 1 case no pain was complained of at all. The three latter were in cases of partial pneumothorax. The voice was in most cases affected, being weakened and of a whispering character. The patient in one or two cases felt a distinct breaking as of something giving way in the thorax. As a rule, when first seen after the accident, the patient lay on the sound side, but after a few days when the initial pain had subsided he invariably changed and rested on the affected side.

Contrary to the prevailing opinion and experience that the symptoms of partial pneumothorax are mild and the accident not of serious moment to the patient, our five cases of the above series were as serious and fatal as the total form. Disregarding the one case which was not discovered during life, the subjective symptoms were just as severe and the general distress, dyspnea, cyanosis and shock just as marked in the partial as in the total.

The physical signs differed, depending on whether the pneumothorax was partial or total, and, if partial, on its extent and location. In total collapse of the lung the signs were those invariably found. The affected side was enlarged and the intercostal spaces more or less effaced; the shoulder usually elevated; much diminished respiratory movement, or its entire absence over that side, whereas the sound side made more forcible movements than normally due to the extra work thrown on it. When the lesion was on the left side, the cardiac apex pulsation was absent, and a marked epigastric pulsation present. When the lesion was on the right, the apex beat was found moved to the left. Percussion over the affected side gave a hyperresonant or a truly tympanitic note extending in all directions beyond the normal lung boundaries. Auscultation gave different results, depending on the size and nature, whether open, closed or valvular, of the pleural perforation. Immediately after the accident there was usually heard a distant tubular to-and-fro rush of air which had a decided amphoric tone. Mingled with this were usually heard amphoric tinkling and bubbling râles. Soon after the occurrence of total pneumothorax fluid invariably began to collect in the cavity, due either to fluid escaping from the lung through the perforation or to a pleuritis, or to both, the former causing the latter. After the first two or three days following the onset the acute symptoms of pain and the general distress subsided and the patients felt quite comfortable, aside from the dyspnea.

Prognosis.—The prognosis at this sanatorium has certainly been very unfavorable, all the cases dying as a direct result of the accident, excepting the two previously mentioned, one of which was partial and discovered at autopsy, and the other total, but expected to end fatally at any moment. Of the cases, 3 died from shock, 2 in a little over an hour after the onset, and the third after 15 days, from what seemed a giving way of adhesions and the enlarging of an already partial collapse of the lungs; 2 died of asphyxia, 1 in three, and 1 in nine days, and 3 died from exhaustion in from 17 days to 7 weeks. The cases of partial pneumothorax lived from 3 to 17 days, and the total cases from 1 hour and 10 minutes, to the duration of the case still living at an interval of over two months from the onset.

Conclusions.—From our experience of the last nine months it would seem that pneumothorax is a more common accident here than elsewhere, and that the prognosis is less hopeful. If this be so we would naturally look to the altitude of 6,150 feet as a possible explanation, inasmuch as it requires more air to be respired to oxygenate the blood, and consequently a greater amount of lung or a greater activity of the same amount as would be needed in less elevated regions, and therefore any great disturbance of the respiratory tract such as occurs in pneumothorax is not well borne. But the drawing of conclusions as to why so large a percentage of the deaths at this place have been due to this cause must be deferred until more cases and a larger series can be reviewed.

I desire to thank Dr. P. M. Carrington, at whose instigation this report was written, for placing at my disposal the records of the sanatorium.

HEADACHE FROM NON-SUPPURATIVE INFLAMMATION OF THE ACCESSORY SINUSES OF THE NOSE.

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Attention has recently been called to headache from disturbance of air pressure in the accessory sinuses of the nose. This disturbance, not so rare as might be supposed, produces all the symptoms of an empyema, except the discharge. The cause of this condition is stated by one author as being "from air pressure in the sinus." It seems to me, however, to be produced by a diminution of air pressure in the sinus. This diminution in pressure is caused by obstruction to the ingress of air to the particular sinus by closure of its natural orifice. For instance, the middle turbinal may be swollen from inflammation; the swollen body obstructs the sinus so that the cavity is shut off from the nasal chambers. The imprisoned air loses its oxygen from absorption by the blood vessels in the mucous membrane of the cavity. As a result of this absorption, the pressure on the mucous membrane is lessened by rarefication of the air contained in the cavity. This causes a swelling of the mucous membrane in the sinus. If the opening becomes patent, the condition subsides, but in cases where the opening remains closed for some time, the cavity is encroached on, 1, by swelling the mucous membrane; 2, by the pouring out into the cavity of lymph, and 3, by the engorgement of the mucous membrane itself by lymph.

The same condition exists here as in non-suppurative inflammation of the ear, caused by occlusion of the eustachian tube. The symptoms vary according to the time the sinus remains closed. The case may present intermittent symptoms from the occasional opening of the sinus by the contraction of the tissues of the middle turbinate. The usual objective signs of empyema are absent. There is no mucopurulent discharge and transillumination gives a negative result.

Case 1.—Mrs. F. J. S. This patient has a nose that appears normal in condition save that there is a hypertrophy of the anterior end of the middle turbinate. She complains of almost constant intense pain between the eyes. It has lasted now for two weeks. She had a similar attack one year ago, which followed "a cold in the head," and was at that time treated by her oculist, who dropped medicine in her eyes and gave her prisms for the relief of exophoria. She subsequently was under the care of an osteopath who treated her till the symptoms subsided. The former attack lasted about three months, until the weather became warmer. At present she complains of photophobia and pain on pressure over the inner angle of the eye. There is no discharge in the nostril, but the middle turbinate is large, red, swollen and slightly myxomatous. Applications of cocain and adrenalin contracted the tissues of the middle turbinate so that a small pledget of cotton could be pressed under it. The turbinate was painted with glycerin and iodin, and the patient experienced relief in an hour after the application. Five treatments, given during a week, resulted in a complete cessation of symptoms. There has been no recurrence of the symptoms since, six months after treatment.

Case 2.—Mrs. A. W. K. had antrum disease 3 years ago and was treated by irrigation through the natural orifice daily for six months, when a cure was effected. There has been no discharge since that time. The present trouble dates from about two months ago. The patient is very nervous, has flushing of the face which lasts about 18 to 24 hours and which is followed by headache which settles over the right antrum. The headaches are similar to those she had while she had antrum disease. Transillumination test shows both sides very clear and of equal brilliancy. The nose is high and narrow. The right middle turbinate hangs well out into the nostril and extends down to the upper edge of the lower one. There is some hypertrophy, most marked on the outer side of the body, toward the hiatus semilunaris. The tissue is red and swollen. It is impossible to pass a probe with a small pledget of cotton under the body without using force. After shrinking the membrane with cocain and adrenalin, the opening of the cavity of the antrum was painted with an astringent pigment and the patient was not seen for two days to note the effect. On the third day she was seen again and said that the pain had disappeared in an hour or two after the first treatment, and that relief lasted 24 hours. Subsequent treatments corroborated these facts. No permanent effect being obtained, at the end of two weeks the anterior end of the middle turbinate was cut away and was followed by absolute and prompt relief.

These cases represent a class of headaches heretofore overlooked, and in one of them the advice of a competent rhinologist was sought, who said it was only imaginary or due to some little cold. It is thus attempted to show that we have non-suppurative inflammations of the accessory sinuses of the nose, as well as in other portions of the body, and that it is possible to relieve such cases by the treatment of the tissues which are the cause of the trouble. Attention to the middle turbinated body is becoming more imperative, as it is the key to the most important part of the nostril.

100 State Street.

HOSPITAL EXPERIENCE NECESSARY FOR LICENSURE—A SUGGESTION IN MEDICAL EDUCATION.

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Much has been written on medical education, and the better medical schools are trying to raise the standard by requiring more in the way of general education before allowing one to matriculate, and a more thorough knowledge of medicine, both theoretical and practical, before granting a diploma. The civil authorities in the different states are more or less active in the same line, one state after another in the past few years having made it illegal for a person to practice medicine before he has, ostensibly, shown his fitness for the work, by passing the examination of the licensing board.

These facts show, in brief, that: (1) The standard of educational equipment of the average physician is so low that those best fitted to judge are far from satisfied with it, and (2) these are anxious to improve the present state of affairs. We must admit, however, that the present methods of raising the standard are inadequate, and that the prospects for improvement are not so bright as we would have them.

The requirement of a collegiate degree before admission to a medical school is greatly to be desired, but it will be many years before this will be done by any but a very few of the best schools. State board examinations, though very unsatisfactory and inadequate, are undoubtedly of great benefit, and are a step in the right direction, but are only a short step on what will prove to be a long journey if we follow the same road.

To give an example of the inadequacy of which I speak, let me mention the case of a young man who, after receiving his diploma from a small, almost unheard-of medical school, took the examination of a state board, whose requirements are said to be among the highest. While being "quizzed" by another man who was taking the same examinations, he was asked something about syringomyelia. The young physician hesitated, he evidently knew nothing about it, and then he explained his ignorance by saying that he had seen the name in his text-book, he thought, but that, when they were studying the text-book—not medicine, mind you, but the text-book—they had skipped that subject with several others. He made this statement with the utmost candor, and it probably never occurred to him that there was any difference between the study of medicine and the study of a text-book on the subject. Nevertheless, this man, who evidently had no conception of what a medical education ought to be, passed the examination, was granted a license, and was thus turned loose on the community. This is merely a single case, but undoubtedly there are, every year, many men no better qualified than the one above referred to presenting themselves before examining boards, who, nevertheless, under the present laws in most states, are compelled to grant them licenses to practice, merely because they have passed their theoretical examinations.

The object of the state board of examiners is to prevent men without the necessary requirements from practicing medicine, but in many cases it lamentably fails, even though the requirements of the particular state board may be far above the average. Admitting this to be the case, is there any other practical way of remedying the evil? It seems to me that there is, but, unfortunately, it does not lie in the power of the medical profession, but in that of the legislative authorities, whose duty it is to see that the men whom they pronounce worthy to take in their hands the lives of their fellow beings (for whose benefit and protection they are supposed to enact laws) are worthy of and fitted for the trust.

The method I wish to suggest is this: That the state, in addition to requiring that the applicant pass the state board examination, shall require the applicant to have had at least one year's hospital work before his license is given him. By hospital work I mean that which is afforded by the position of interne in a good hospital. At first sight this may seem impracticable, but it is not likely that it would prove so. It may be said that there are not enough of such hospital positions for every graduate in medicine to obtain one. With the present number of annual graduates this may be true, but it is a well-known fact that the supply of physicians is far in advance of the demand, and if the supply were cut down to meet the demands there would in all probability be positions for all.

Such a legislative provision would be all the more desirable from the fact that it would not only greatly aid in cutting down this far too-plentiful supply and thus aid in reducing so much commercial competition, but, what is better, it would cut off its least capable and desirable portion, for it is well known that the better men in a graduating class, in the better schools, can get hospital positions, though sometimes they may have to wait for a year or so before going on duty; and not only that they can get them, but that, as a rule, they are not satisfied until they do, and do not consider themselves fitted to practice medicine till they have profited by the practical experience which such positions afford. It is, as a general rule, the least capable and most unfit men in any class who are willing to start out in private practice without getting hospital experience—though, of course, there are exceptions to this rule. Undoubtedly such a law would work hardships and injustice in certain cases, but that it would be of the greatest good to the greatest number, which ought to be the fundamental principle in all legislation, there can be no doubt whatsoever.

Possibly it may be said that this suggestion with regard to medical legislation is too Utopian to be practicable in this country. It has not proved so in others, and why should the medical profession in this country be behind that of others in their standards and ideals? In time some such step must be taken, and why is not the time now ripe for it? The only hope of progress is in having high standards and ideals. Let us do all we can to elevate them!

THE PLASTIC SURGERY IN THE UNIVERSITY MATERNITY FOR THE YEAR 1903.*

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The propriety of repairing the posterior vaginal wall and the pelvic floor after labor by an immediate or intermediate operation is universally conceded. It is curious, therefore, that the other injuries of the genital canal in labor are ignored by the majority of general practitioners and specialists, although they are almost as common and have consequences quite as serious as the so-called "lacerations of the perineum." Indeed, when one considers the indubitable relationship of lacerated cervix to cancer of that region and the discomfort of a cystocele, it is questionable if injuries of the pelvic floor are not of subordinate importance among the three varieties of traumatism to which the genital canal is subjected in labor.

It must appear illogical to the unprejudiced observer to admit that injuries of the pelvic floor should be repaired without fail in the puerperium, but that the other injuries of childbirth, equally disadvantageous to the patient, just as amenable to reparative treatment, may be neglected. I became impressed with the unimpeachable logic of this view some three or more years ago. After desultory attempts at first to apply it in practice, the principle was finally unreservedly adopted. For more than two years not an injury or a pathologic consequence of labor has been allowed to remain uncorrected in the University Maternity. Pelvic inflammations, displacements of the uterus, diastasis of the recti muscles, nephroptosis, injury of the coccyx, inflammations and injuries of the pelvic joints, pelvic and abdominal tumors and diseases complicating childbirth, all receive their appropriate treatment.

It is, however, the purpose of this paper to direct particular attention to our experience and results in the primary and intermediate repair of the cervix and of the anterior vaginal wall, regions which have been strangely neglected not only by physicians in general, but by experts in charge of our large maternities.

THE CERVIX.

During the past year the cervix has been repaired in 53 puerperal patients.[1] The result has been perfectly good in every case. All of these operations were performed after the fifth day, usually at the end of the first week. Previous experience had taught us that an operation on the cervix before the fifth day was too often followed by infection of the endometrium and fever. At the end of a week this is not the case. We postpone, therefore, the repair of the injuries of childbirth for a week, if the cervix is involved. The patient is put on an operating table, and all of her injuries are repaired by a formal operation under anesthesia. I do this in private as well as in hospital practice and with equally good results.

THE ANTERIOR VAGINAL WALL.

Any one who routinely examines the anterior vaginal wall after labor by pressing a forefinger upward in the sulci toward the pubic bone, will be surprised at first to find how frequently the fascia and muscle of the urogenital trigonum are torn through. This is the first step in the pathologic process that ends in a cystocele. The laceration is usually submucous, but whether it is or not, it is as easily and effectually repaired as the analogous injury in the posterior sulci. The operative technic by which this result is secured has been described in another place.[2] The anterior vaginal wall has been repaired in 42 patients during the past year, in each instance with a perfect restoration of its muscular and ligamentous support. We have, I firmly believe, prevented this number of cystoceles which would otherwise have developed in the future.

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* Read before the Philadelphia County Medical Society.

[1] The cervix was lacerated in 27.8 per cent. of the women delivered; the anterior vaginal wall in 22 per cent., the perineum and pelvic floor in 38.7 per cent.

We may claim, I think, with this record to have demonstrated that all the injuries of childbirth can be successfully repaired during the puerperal convalescence. It is pertinent to inquire, therefore, what valid excuse can be offered for the common practice of neglecting two-thirds of the lacerations of childbirth, while one-third, it is admitted, must be attended to. Why should a woman after labor be only partly patched up? Why should any woman be condemned to years of disability and invalidism as the result of childbirth, and finally be subjected to a secondary operation, when she could be restored to a perfect physical condition during the lying-in period? This is a question which we should seriously consider ourselves before it is forced on us from the outside.

There is no reason at all why this work should not be properly performed in the maternity hospitals of the country. Any institution of the kind not equipped for pelvic and abdominal surgery and not provided with a staff competent to give the patients the attention so many of them require, should obviously either be reformed or suppressed. In private practice, it must be conceded, there are difficulties to overcome, but these difficulties are not insuperable. In the first place, the slipshod methods of the past must give place to a more modern technic. It is impossible either to diagnosticate or to treat the injuries of childbirth properly with the woman across the bed in the first few minutes after delivery, or even, as a recent text-book recommends, before the expulsion of the placenta. The patient should be put on a table with the legs supported as in any other thorough gynecologic examination or vaginal operation. A specialist will have a good portable operating table and a corps of assistants, but any general practitioner can secure a kitchen table and can provide himself with portable leg supports. The only assistant he absolutely requires is an anesthetizer. The necessary instrumental equipment is so simple that it is within any one's means. The aseptic technic necessary for the patient's safety must be familiar to any one fit to practice obstetrics at all.

It has been argued that the adequate repair of the injuries of childbirth would be too much trouble, would not be sufficiently remunerated, would not be tolerated by many patients, and is, therefore, impracticable. The same arguments could be urged against almost any advance in medicine, and if valid, would stop all progress. It is true that some physicians who practice obstetrics to-day could not successfully repair any of the injuries of childbirth, but this will not be true of the immediate future. No medical student leaves the University of Pennsylvania who has not served as assistant in several operations to repair all of the injuries of parturition, and no doubt the other medical colleges in the first rank are giving their students equal advantages. It is exhilarating to think what this improved training can accomplish in preventive medicine. If every woman were given the attention she ought to receive after childbirth, three-fourths of the diseases of women would disappear.

Clinical Reports.

FOUR CASES OF INTERCURRENT ERYSIPELAS IN MELANCHOLIA.

WITH RAPID RECOVERY OR GREAT IMPROVEMENT IN EACH CASE.*

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Introduction.—Recoveries from the acute psychoses as given by different authorities vary all the way from 50 to 80 per cent. The course of treatment in the great majority of these cases is necessarily prolonged, requiring from three to twelve months' time, and calls for the utmost patience and perseverance on the part of the family, the physician and the nurse. However, it occasionally transpires that some intercurrent disease or some unforeseen agency interferes to cut short an attack of mental disease and we have known instances where factors, otherwise considered etiologic, have been responsible for a sudden favorable turn in the disease. The shock following surgical operations has in many predisposed individuals produced insanity. Typhoid fever and other exhausting diseases also play their part in bringing about a state of mental derangement. In some instances shock alone, traumatic, surgical or emotional, is responsible for the development of a favorable mental reaction, while in others toxins circulating in the blood or the reaction due to a febrile movement may be the cause. This so-called reactionary process is the principle applied in thyroid therapy, frequently used in the treatment of some forms of insanity. Thus it is evident that some agencies usually considered causative may also prove curative under certain conditions.

I present the histories of four cases in which this reactionary process was brought about by infection with the streptococcus of erysipelas. All were cases of acute melancholia with profound depression and symptoms promising a protracted course.

Case 1.—A man, 42 years of age, American, married, lumber merchant, gave no history of excesses in any line, but was of a highly neurotic temperament. He had always enjoyed good health and strength aside from an attack of appendicitis about ten years previously. At that time an abscess formed and ruptured into the bowel and left a more or less chronic gastric disturbance. Early in the fall of 1902 he received quite an emotional shock by the sudden death of a 4-year-old daughter, to whom he was very much attached. There soon followed nervous indigestion, insomnia and loss of weight. Then ideas of self-depreciation and marked hypochondriacal obsessions and finally an uncontrollable agitation developed. This patient first came under observation Nov. 12, 1902. At this time a full examination was rendered impossible because of his agitation and his refusal to answer questions intelligently. There was marked insomnia, very little appetite, the tongue was covered with a heavy, dry, yellowish coating and the bowels were constipated. The deep reflexes were all much exaggerated, yet there was no evidence of organic disease. The picture was one of agitated melancholia, with anxious expression, hesitating and disconnected speech, marked confusion of ideas and great impairment of volition. He was unable to dress or feed himself, and passed most of the time walking about his room, fearing that food or water taken into his stomach would produce appendicitis, and frequently asserting that he knew death was impending. November 15 it was noted that he had been growing more agitated and resistive. At this time he gave expression to well-defined delusions of persecution, refusing food from fear of poisoning, would not undress at night because he knew that his enemies would come in and carry him off to the torture chamber, consequently his sleep was much broken. All his symptoms grew more pronounced until he seldom spoke, would do nothing for himself, and required to be fed with the stomach tube. November 21 patient awakened with a well-defined facial erysipelas, beginning on the right side of his face just in front of the ear and in the external canal of the left ear, from which came a seropurulent discharge. At this time the axillary temperature was 100, pulse 95, while there was a slight improvement in his mental condition, so that he took food freely. During the next week the infection spread entirely over his face. The fever remained around 103 F., and at one time reached 105 axillary. Pulse and respiration were rapid. During the height of the fever he was mildly delirious at times, but for the most part exhibited a clearness of ideas and a freedom from depression witnessed at no previous time during his illness. He took nourishment well and extended his co-operation in every respect. There was no return of the temperature twelve days after the erysipelas first appeared, and seventeen days from the time the infection manifested itself he was dressed and walking about his room, partaking heartily of solid food, while his sleep and other physical habits were normal.

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[2] Text-book on Obstetrics, fourth edition, and Text-book on Diseases of Women.

* Read before the Milwaukee Medical Society.

The most interesting feature of this case was the disappearance of the depression and all other mental symptoms as the fever subsided, so that in fourteen days he passed from a condition of profound and progressive depression, utter confusion of mind and well-defined delusions to one of clear perception, buoyancy of spirits and freedom from delusions. Improvement was uninterrupted, and there was no return of any mental irregularity, and on Jan. 5, 1903, seven weeks after admission, patient was discharged in prime physical health and mentally sound, aside from an unnatural degree of buoyancy.

Case 2.—A man, 64 years of age, with unusually good hereditary influences, married, the father of five healthy children, and a well-to-do farmer, reported having been in excellent health of body and mind for the past thirty-four years. When 30 years of age he had an attack of neurasthenia, lasting only a few weeks. Early in November, 1902, patient began to "feel out of sorts" and complain of fatigue, nervousness and broken sleep. He rapidly grew worse, so that on Jan. 7, 1903, when admitted to the sanitarium, he was very depressed, talked but little, was very restless and uneasy, walking the floor most of the time while awake, rubbing and wringing his hands, saying he was not ill but was suffering for his sins. His delusions related to his unworthiness, loss of property, imaginary poverty, and utter hopelessness of anything being done for him. His physical condition was quite reduced, sleep very broken, appetite poor, but organic changes were absent, aside from considerable arterial thickening. I was called to see this patient early one morning six days after admission. He was profoundly depressed, refusing food, and an erysipelatous rash was spreading over his face. Temperature was 105, pulse 140. During the next four days the temperature ranged from 102 to 104, pulse from 85 to 110. At this time he began showing less opposition to treatment and took nourishment more freely. He also answered questions more promptly and rationally. Eight days after the first appearance of the rash the temperature and pulse were normal. From the inception of the fever motor restlessness practically subsided and never reappeared, and his sleep improved. There was at the same time quite a sudden change for the better in his mental state, so that all opposition disappeared, and he co-operated freely in his treatment. His conversation was more free and rational, and sixteen days from the development of the streptococcus infection the following entry was made in his history: "Patient is improving daily. Had eight hours' natural sleep last night. Eating well. Talks freely and rationally. Is bright and cheerful for the most part; now hopeful and begins to believe that he will recover. Does not show any delusions or other mental irregularities." On March 26, 1903, or ten weeks after admission, he was sufficiently improved to return home.

Case 3.—A man, 49 years old, of a highly neurotic nature, single, and a very successful traveling salesman, came under observation Feb. 6, 1903. Five months previous to admission he found himself growing nervous and irritable and unable to apply himself to business. Insomnia became a source of great anxiety to him, and he slowly drifted into a state of melancholia, with many and rapidly changing delusions of a hypochondriacal order. He was positive that nothing could be done for him. His waking hours were full of horrible fears, and his few hours of sleep disturbed by terrifying nightmare. If he were left alone a few minutes he became so alarmed as to cry out for help. Physically he was much reduced. Nineteen days subsequent to his admission he developed facial erysipelas, with a temperature of 103 and a pulse of 130. The eruption, temperature and other somatic symptoms ran a course of only five days. Coincident with the first rise of temperature, there was an improvement in his mental state, and the notes state that five days after the fever subsided he was normal, less nervous, sleeping better and appeared much less anxious about himself, and patient stated he was feeling better in every way. At no time subsequent to this infection was there any return of his delusions, although at times he became nervous and anxious. In four weeks he returned home and gradually began to take up his duties, and is quite well to-day.

These three cases demonstrate the almost miraculously sudden physical improvement and rapid melting away of delusions not infrequently witnessed by those coming in constant contact with the insane where some intercurrent disease or severe shock occurs. This is, however, more frequently the case in the reaction following the infection with the germ of erysipelas. None of these three cases has suffered from a return of their mental symptoms during the past twelve months. I had the opportunity, however, to observe one more psychosis complicated with erysipelas where the results were not so permanent but none the less sudden and pronounced.

Case 4.—A man, 45 years of age, was suffering from profound melancholia. Insomnia, motor agitation and complete refusal of food were present along with delusions of persecution and loss of property. In this condition facial erysipelas developed, accompanied by a run of fever lasting a week, temperature never going above 100.5. Patient began to improve in every way as the temperature developed. His physical habits and functions became regular. There was a rapid mental clearing up, but he never abandoned the delusion that he was a ruined man financially. Four weeks later he began to grow more restless, sleeping poorly, and was more or less under the control of his delusive ideas. During the next eight weeks his condition remained stationary, but at no time during the past several months has he returned to the profound depression and confusion preceding the infection above named.

CIRSOID ANEURISM OF THE BRANCHES OF THE INTERNAL CAROTID AND BASILAR ARTERIES.

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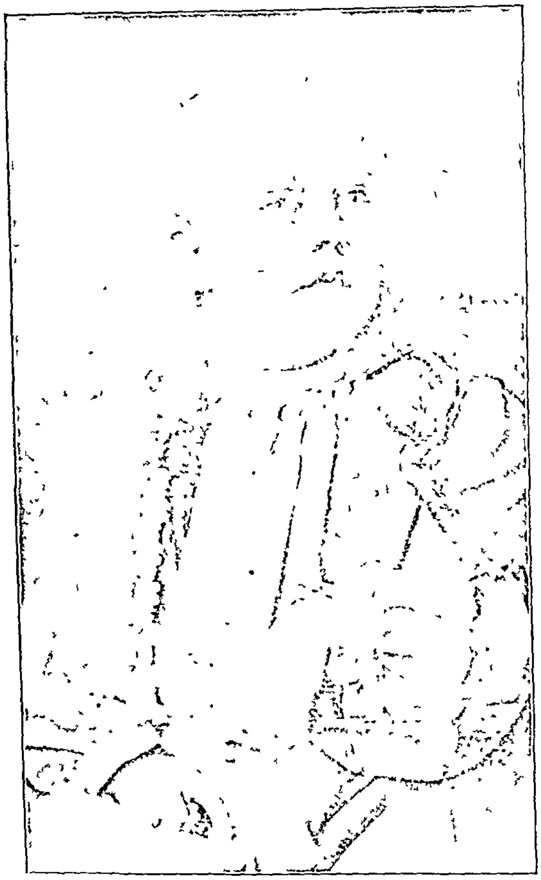
I am indebted to Dr. Charles Montgomery for the privilege of reporting this case.

The patient, M. M., aged 13, has a negative family history. She presents a tumor over the right orbit which is said to have appeared a short time after birth as a growth the size of a hazel nut, whereas it now extends midway to the occiput. The tumor is pale in color, of a doughy consistency, and is composed of dilated terminal branches of the ophthalmic artery. There is absence of hair over the tumor. The eye projects forward, downward and outward. The conjunctiva of the upper lid and of the inner and outer angles of the eye is thickened by distended blood vessels. The cheeks show dilated capillaries near the nose. Dilated vessels are not seen elsewhere. There does *not appear* to be any weakness in the walls of the arteries, as was shown by the prompt arrest of hemorrhage following the extraction of a right upper molar. This operation gave the patient great pain, showing that the fifth nerve was not affected. The fingers of the left hand are flexed and can exert some pressure, but less than can those of the right, and when this pressure is exerted a tremor develops. This is shown in the photograph by the blurred image of the hand which held the pencil, while the right hand was perfectly steady. The extensors are paralyzed; she straightens her fingers with the other hand, but they immediately *return* to the flexed condition. The left leg shows the same condition, the extensors are paralyzed, the flexors are in slight spasm, and in walking there is a spastic gait, the toes catching the ground. *The spasm of the flexors* has developed gradually during the last six years. The skin of the left side is hyperesthetic. The right ear is deaf, the right nostril has lost the sense of smell, the right eye is blind and its pupil smaller than that of the left, but acts consensually, though sluggishly, with the left. All the external muscles of the right eye excepting the external rectus and the superior oblique are paralyzed, as is evidenced by the inability to move the eye up and in beyond the median line. The upper lid can be raised slightly, but that is evidently due to the action of the occipitofrontalis (i. e., paralysis *of the third nerve with the exception of* the fibers supplying the sphincter of the pupil and the ciliary muscle; these also do not functionate properly, as is evidenced by sluggish pupillary reaction).



Ophthalmoscopic examination shows the media perfectly clear. The optic nerve can not be seen. The entire background shows one mass of closely packed distended and tortuous arteries which have lost the central reflex band. At no place in the retina is there the smallest area free from vessels, and arteries can not be distinguished from veins. The left eye retains the power of all the muscles, but the pupil does not react when light is thrown into the right eye. There is entire absence of the left side of the field of vision and the right side is contracted to within ten or fifteen degrees of the fixation point.

The left ear and the left nostril are normal.

The tongue deviates from the median line when protruded and has lost the sense of taste on the right half. The patient has a very good memory and recites a piece of poetry of about forty verses without hesitation, but when speaking in ordinary conversation there has been of late a hesitancy in speech.

From the symptoms it will appear that the right olfactory nerve and the right optic nerve and commissure are subjected to pressure, and this is produced by the dilatation of the anterior *cerebral* and right ophthalmic arteries; the right third nerve and the crus cerebri are likewise subjected to pressure, and this is produced by the dilatation of the posterior communicating, posterior cerebellar and subcerebellar arteries. The pressure on the eighth and ninth nerves is produced by the dilatation of the anterior cerebellar, a branch of the basilar artery. As the basilar is formed by the two vertebral arteries, and *the right anterior cerebral receives* blood directly from the left anterior cerebral through the anterior communicating artery, ligating the right internal carotid and the right vertebral would be of no avail. I look forward to some amelioration of the conditions when menstruation is established.

ATTEMPT AT SUICIDE BY DRIVING NAIL INTO THE BRAIN.

G. F. POPE, M.D.
BATTLE MOUNTAIN, NEVADA.

J. F. B., a native of England, aged 43 years, who was employed on the Nevada Central Railroad as a section laborer, had been on a drunk for two weeks. I was called by the jailer to see him, as he had refused to take any nourishment for three days. Pulse, 80; temperature, 99; bowels constipated. I advised *nourishment* by the *stomach tube; this* measure was successful, and soon he began to take regular meals. I was told that he had talked of committing suicide by driving a nail into his head.

I was asked to see him again ten days later and found him somewhat drowsy and unwilling to answer questions unless urged to very forcibly. Pulse, 86; temperature, 102. He referred what pain he had to the head, and on examination I found the head of a nail buried in the scalp six and one-half inches back of the nasal eminence in the suture between the two parietal bones. He was removed to the nearest hotel, and after an hour's questioning he admitted having driven a nail into his head in attempting suicide.

Under chloroform I extracted a three-inch wire nail, which had been sharpened for the occasion. Pus escaped from the nail hole, so I laid back a flap of the scalp and trephined the skull over the nail hole. On removing the button of bone, *still* more pus escaped, so I irrigated the track of the nail with sterilized water and with peroxid of hydrogen. By gently probing I traced the course of the nail down between the hemispheres of the brain into the great longitudinal fissure. A three-and-a-half *inch drainage* tube was insinuated into the course the nail had taken and a bichlorid dressing applied.

The wound was irrigated each day with peroxid of hydrogen and with sterilized water. The tube was shortened from time to time, the wound was well healed in two weeks, and the man was committed to the state asylum at Reno.

Coffee Gelatin vs. Coffee Infusion.—The London *Lancet* says: "A clear coffee gelatin after dinner is every bit as good as the hot infusion, while it is free from some of the drawbacks of the latter." Is this true for the person whose only purpose in drinking coffee is to have a hot drink to "warm up his stomach"? The *Lancet* calls gelatin an excellent vehicle for coffee, especially *because it nullifies the astringent* principles. Gelatin in the form of jelly is cooling, assuages thirst, is soothing, and has a tendency to absorb any excessive acidity of the stomach. This indicates where it will be of value.

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THE BIOLOGY OF CANCER.

Cancer is a subject that requires the utilization of every possible source of knowledge for the solution of its problems. It is fortunate that it is a disorder not confined to our species, but that in many ways it can be studied to advantage in the lower animals. This probably has been too little recognized in the past, but its fundamental significance was early seen by the workers in the British Cancer Research Fund. In an important paper recently published,[1] the general superintendent and director of the cancer research laboratory, Dr. E. F. Bashford, with the co-operation of Dr. J. A. Murray, reports the results of the investigations during the past year. They find that cancer growths are by no means infrequent in almost all orders of vertebrates, and in their general features are the same in all, notwithstanding the great diversity of conditions and environment. The very large number observed in domestic animals indicates very clearly, they say, that the malignancy of the growths is recognized according to the ease with which the animals can be examined and the length of time they are kept under observation. Malignant new growths are frequent according as the animals are frequently examined, and are only unrecorded in the species that are difficult to observe or that do not reach old age in sufficient numbers.

A few weeks ago, in a paper presented to the Royal Society, Farmer, Moore and Walker reported that the mitoses of cancer growths in man in part closely resemble or are identical with those of the reproductive cells. From their observations the authors concluded that malignant new growths were virtually reproductive tissue arising in abnormal situations and independent in growth like that of certain organs, such as the testis in the mammalian body. This peculiar sequence of the reproductive type of mitoses in cancers was present in all malignant growths they examined, but absent in the benign.

Drs. Bashford and Murray have had opportunity of examining the specimens reported on by these authors, and have carried the investigation still further into the lower animals with the result of fully confirming their statements as to the facts. They note the following points as of great importance: "A complicated sequence of cell changes has been found to be characteristic of carcinoma and sarcoma alike. The sequence is the same as that which initiates the origin of the sexual generation in plants from the asexual and [which] is terminal in the history of the sexual cells in animals." They further note the fact that not all the cells of malignant new growth undergo this reducing division. A certain number follow the type of mitoses of the tissues among which the growths arise. In secondary growths the usual somatic mitoses occur in the growing margin, which is also a feature in the growth of the transplanted metastatic cancer.

The transmission of cancer from man to animals or from one species of animals to another, has not been successfully performed, but it has been well established that cancer growths can be transferred from one animal to another of the same species. Professor Jensen of Copenhagen, who has done most in this direction, has placed some of his material at the disposal of the Cancer Research Fund, and Bashford and Murray have been able to confirm by experiments his observations. They find that the transplantation is identical in its processes with metastasis as it occurs in individuals providing the tumor. The earliest mitoses observed are of the somatic type. The process is in no sense an infection, the tissue of the new host not participating in the formation of new parenchyma; hence, the authors agree with Jensen and not with Borrel, who considered the results due to the agency of a cancer virus. The immense proliferation of the growth thus transplanted is one of its striking features, and indicates the possibilities of cancer dissemination. The phenomena of the experimental transmission of carcinoma show, they say, that we must distinguish between the problem of genesis of cancer and that of the condition which permits of its continued existence. The phenomena of cell division resembling those of the ordinary reproductive tissues may help to explain the nature of the great power of multiplication, but give no help as to the problem of cancer genesis. These phenomena, however, give indications of the character of the processes. The wide distribution of malignant growths and the possibilities in this regard not yet ascertained indicate that the cause of cancer is to be sought in a disturbance of those phenomena of reproduction and cell life that are common in the forms in which it occurs. Observations on animals—and these agree with the clinical facts in man—show that malignant new growths are always local in their origin, and of themselves produce no evident constitutional disturbance. There is an absence of specific symptoms, and the evident finding that cancer is an irregular and localized manifestation of normal processes in the life cycle of the organism probably explains why malignant new growths and their secondary disturbances have no specific symptomatology.

The suggestiveness of the facts here brought out, especially those noted by Farmer, Moore and Walker that cancer cells develop mitoses identical with those of reproductive cells, is obvious. They are perhaps a little too suggestive, and may lead to deductions that are not as yet warranted. Attention is called to this point in a note added to the article of Drs. Bashford and Murray, who remark that their utterances have been misconstrued and conclusions attributed to them that have been drawn by others. The cells, they say, that have undergone the reducing division are not responsible for the invasion of the surrounding tissues nor for the production of metastases; for both of these the somatic dividing cells are responsible. Nor do the number of heterotype or reproductive mitoses in the cells have any relation apparently to the degree of malignancy; their absence is only presumptive evidence of the benign character of the tumor. They postulate nothing as to the future of these cells, though they believe them to be the terminal stage in the life cycle of cancer cells as in the sexual cells in animals. The local origin and the expansive and infiltrating growth is really the criterion of malignancy, and stamps it as belonging to a new cycle comparable in its entirety to the whole organism which it is invading rather than to any one of its tissues, reproductive or otherwise. The article is one that will undoubtedly attract considerable attention and be fruitful of future work in this particular line. The problems of cancer are yet very far from solution, but every step like this is an aid to their elucidation.

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[1] The Lancet, Feb. 13, 1904.

PHYSICAL CHEMISTRY AND SERUM THERAPY.

The subject of serum therapy is developing rapidly into such a complicated affair that few physicians have time or patience to attempt to master it. It certainly is a hopeless task for those engaged in ordinary practice. Only a few specialists pretend to know the various theories in all their phases, and to keep up not only with the great mass of facts daily accumulating, but also with the modifications of the theories which these new facts continually demand. No wonder we occasionally hear severe criticism of Ehrlich's theory, for instance, as regards its extreme complexity and the absurdity of some of its conceptions. Perhaps too often it is from those who have not the patience, or possibly the prerequisite knowledge to follow out the intricacies of the hypothesis, and who, for that reason, should not be heard. However absurd may appear some of the assumptions, no one can object to the theory as a working hypothesis. More than this no one claims for it. And until we get something better, it will continue to direct and suggest thought in the future as it has done for several years past. However, it is clear that it is only a question of time when the theory must give way to something more fundamental. It deals with chemical substances and chemical and physical processes; therefore, ultimately it must be interpreted in terms of chemistry and physics. It seems, then, that the vast nomenclature which has arisen in connection with this work must largely be supplanted by chemical and physical terms as soon as we have a sufficient understanding of these substances to apply them.

Of extreme importance is the recent work of Kyes, already editorially commented on in THE JOURNAL, in the way of placing this whole conception on a chemical basis. How much simpler the whole subject becomes when we know that a definite chemical substance—lecithin—can act as a complement, and also that a toxin, which we are accustomed to look on as a complex organic substance, can be isolated and dealt with in pure crystalline form. This work is certainly extremely encouraging for the simplification of our conceptions of serum therapy.

Of equal interest and importance is the work of Arrhenius and Madsen[1] in purely physicochemical lines. Perhaps the medical profession should be congratulated on having the interest and thought of such a genius as Arrhenius directed along this line. Arrhenius is the noted physical chemist in Stockholm. We are already indebted to him for his great work in electrochemistry. It was he who, in 1887, first formulated that important and far-reaching theory of electrolytic dissociation. Through the brilliant work by van t'Hoff on the analogy of dilute solutions and gases and their relation to osmotic pressure, and also through the work of Raoult on the depression of the freezing point, Arrhenius was able from his observations on electrical conductivity to formulate this theory. It certainly is one of the most noteworthy generalizations in science in the nineteenth century. It is only recently also that he has accomplished much for science through the application of the conception of ions and electrons in the explanation of meteorologic phenomena.

His work in conjunction with Madsen in serum therapy bids fair to be of the same revolutionizing character that it has been in other fields. The problem here is the application of physical chemistry to serum therapy. They have shown, especially in their work with tetanolysin, that the same laws govern the reactions occurring between toxin and antitoxin as occur in ordinary chemical processes. The law of mass action prevails here as in other reactions. By this law is simply meant that the rate or velocity of a chemical reaction is proportional to the concentration of the substances reacting, i. e., to the product of the concentrations. This can be represented by the simple formula $V=KC_1C_2$ where V is the velocity, C_1 and C_2 the concentration of the reacting substances and K a constant for a given temperature, pressure, etc. The concentration is often spoken of as the active mass, and refers to the amount of substance dissolved in unit volume. In the case of solids, the concentration or active mass is always constant, and so the active mass is entirely independent of the absolute quantity of solid. As a simple illustration of the laws of mass action, we may refer to the inversion of cane sugar by an acid. If a certain quantity of a 10 per cent. solution of cane sugar is inverted in a unit of time, say one minute, then in a 5 per cent. solution of sugar only one-half as much sugar would be inverted in the same time and by the same quantity of the acid. The velocity of the reaction is only one-half as great in the latter case, therefore proportional to the concentration. It is to be noted, however, that the same time would be required in both cases for complete inversion. Now chemical equilibrium is established when the velocity of the reaction occurring in one direction of a chemical process equals the velocity of the reaction occurring in the opposite direction. Thus the relation of chemical equilibrium to mass action is made apparent.

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[1] Zeitschr. f. physikal. Chemie, 1903, 44, 1.

The work of Arrhenius and Madsen shows that such laws as the above can be applied to such processes as the neutralization of toxin by antitoxin, hemolysis, etc. For example, the amboceptor and complement in combining, do so in such a way that they can be represented by the following equation: (amboceptor) $\times$ (complement) $= K \times$ (hemolysin) where K is a constant for same conditions of temperature, etc. In general, we may conclude, then, that the laws of chemistry and physics hold here as elsewhere. No one probably ever doubted the fact, but the significant point is that the demonstration is at hand.

So here, again, we have a whole new field opened up to the investigator; and certainly it seems to be a most fruitful one for important discoveries. Not only will new facts be discovered, but new interpretations may be given to facts already known which often means as much as the discovery of new ones. We have another illustration of the importance of physics, chemistry and mathematics to the biologist.

SECRETARY TAFT AND THE ARMY MEDICAL DEPARTMENT.

One of the first official acts of Secretary Taft can not but be highly gratifying to every member of the medical profession. It seems that, forced by certain incongruities in the present plan of organization of the Army Medical Department, a bill was drawn by which it was proposed, among other things, to increase the number of surgeons of the higher military rank and to provide for a reserve corps to be made available in time of war.

The original draft of this bill went in the ordinary course, before the General Staff for consideration and report. This General Staff is a highly useful body, created for advisory purposes, and presumed to be made up of representatives of the various branches of the service. It consists of forty-two members, four of whom, for instance, are general officers, twenty-two are line officers, five are engineers, while others are representatives of the Quartermaster's Department, the Signal Corps, the Artillery and other branches of the service. The Medical Department, alone, is without representation. Yet this General Staff, or at least the third division of it, made up of a representative from the Adjutant-General's Department, one from the Ordnance, two from the Artillery and one from the Signal Corps, considers and passes on the most intricate technical questions connected with the Medical Department, and, in the present instance, was called on to sit in judgment on the proposed measures for the reorganization of the medical staff. Naturally enough, several of the recommendations of the Surgeon General, notably the one asking for an increased number of surgeons of the higher military grades, were not indorsed. The Surgeon General, however, so it seems from the published correspondence, insisted on his point. The then secretary, Mr. Root, sent the draft back to the General Staff. The chief of staff then returned it, insisting on the previous dissent and filing an argument in support of the attitude of the General Staff.

The bill was in this condition when Secretary Taft took charge of the war office. His manner of disposing of the question shows that Secretary Taft is still Judge Taft, whatever may be his title. Thus, in his letter of transmittal to the chairman of the Committee on Military Affairs of the House, published in full in last week's issue of The Journal, he states, among other things:

> I have, however, carefully read the arguments of the Surgeon General and the statement of the third division of the General Staff, and also of the chief of staff, and I am bound to say that it seems to me that the arguments of the Surgeon General substantially outweigh those advanced by the chief of staff.

The recommendations of the Surgeon General were, accordingly, substantially concurred in, and in that condition the bill is now before Congress. This circumstance is mentioned at this time to show that the Secretary of War is, in fact, the head of his department; that he has a mind of his own and a judicial mind at that; and, furthermore, that the necessities of the medical service will receive intelligent and just consideration at his hands. It is the duty of the medical profession to make known its appreciation of his fairmindedness, which, unfortunately, has not always prevailed in the office now occupied by Secretary Taft.

THE DEVELOPMENT OF HEMOLYMPH NODES IN ADIPOSE TISSUE.

It is well known that under pathologic conditions new lymphadenoid tissue may arise either from pre-existing lymphadenoid tissue, from fat tissue as well as in fibrillated connective tissue, e. g., in the mucous and submucous coats of the intestines. Bayer laid special stress on the new formation of lymph nodes in fat tissue, as, for instance, in the neck and in the axilla, both being regions of especial interest to surgeons on account of the frequency of tuberculosis and carcinoma of the cervical and axillary glands.

In the course of his valuable studies of the hemolymph nodes, i. e., lymph glands with distinct blood sinuses, Warthin became aware of a close relationship between these glands also and adipose tissue, and in a recent paper[1] he discusses the histogenetic aspects of this relationship. In the first place, he emphasizes the lability of lymphoid tissue in general, which, in the case of the deeper lymph glands, shows itself especially in the marked variability in number, size and structure, as well as location. This variability is apparently even more pronounced as regards the hemolymph nodes in man, sheep and goats. In pregnancy and lactation, the axillary glands increase in size and apparently also in number, due, it seems, to new formation of lymphoid tissue in the axillary fat, as described by Bayer and Zehnder in regeneration of lymph glands. When lymph glands in any region become the seat of advanced disease, such as metastatic carcinoma, or are removed from the body by dissection, new nodes soon appear. Here, no doubt, is the reason that in regional lymphatic carcinoma the number of invaded glands so often seems to exceed the number of glands usually regarded as normal for the region in question. The new nodes, in part, arise in undeveloped nodes or collections of lymphoid cells that have the power of compensatory growth, but also it is thought wholly anew in the fat tissue. This progressive process finds its opposite in the fatty metaplasia of lymph glands in old age.

The hemolymph glands occupy similar relations to fat. Warthin describes a transformation in the embryo of the primitive fat organs into hemolymph nodes, in the course of which lymphoid cells appear along the capillaries, gradually increasing in number and assuming a characteristic arrangement. The origin of these lymphoid cells is not as yet clear. Lumps of fat tissue inclosing hemolymph nodes assume a brownish color in formalin—a means to help their recognition. In pernicious anemia and in splenic anemia, Warthin finds abundant evidence of new formation of hemolymph nodes, showing that under certain pathologic conditions the "stimuli" necessary for this evolution in fat become operative. Splenectomy in goats and sheep is also followed by the appearance of new hemolymph nodes in adipose tissue, even in those parts where normally they do not occur, as in the subcutaneous fat and along peripheral lymphatics. Many of the nodules described by earlier observers as new splenic tissue in splenectomized animals, appear to have been hemolymph glands. The exact causes and mechanism at work when new lymph nodes arise in fat are not understood. Lymph stasis in case of ordinary lymph nodes, or blood stasis in the case of the hemolymph nodes, is regarded as the earliest change in the fat lobules. Later the dilated lymphatics become lymph sinuses and the dilated blood capillaries blood sinuses, but the fundamental causes of this primary dilatation have not been worked out.

ADMINISTRATION OF THE ARMY MEDICAL DEPARTMENT.

The *British Medical Journal,* February 13, contains a leading editorial and a resolution by the British Medical Association which have a singular appropriateness to present conditions in the United States. The Boer War revealed defects in the organization of the British War Department very similar to those which the Spanish War brought to light in our own, and the proposed remedy for inco-ordinated bureaucratic administration is an army council corresponding to our new General Staff. It appears that on this army council, as on our General Staff, one of the most important and in number the greatest of all the staff departments, the medical, is not represented. Against this ill-advised and fatuous omission the British Medical Association protests in dignified and forcible terms, and the *British Medical Journal* points out that the dearly bought lessons of the Boer War are being already forgotten or ignored.

The parallel in our own service is complete. The function of our Army General Staff is to prepare plans for the national defense and to study all questions connected with the efficiency of the Army. Certain members of it are detailed for duty on the staffs of general officers, but as only a few are called on to perform executive duties, there is nothing in the law or organization of the General Staff which stands in the way of medical officers thereon. The Medical Corps is by far the largest of all the staff departments, constituting one-twelfth of the commissioned strength of the Army. It nearly equals in numbers the eight other staff departments which together contribute eleven out of the forty-two members of the General Staff. In the sanitary supervision of the Army and the examination of its recruits, as well as in the care of the sick and wounded, its efficiency is closely connected with that of the Army. It has an enlisted force of three thousand hospital corps men. In time of war it has administrative problems, which, in complexity and magnitude, are exceeded by those of no other staff department. And yet, in the working out of these problems and the study of questions of its own organization, the Medical Department has no voice. Matters pertaining to the organization, equipment and training of the Medical Department are considered and determined by a section of the General Staff composed of two officers of artillery, one of cavalry and one of infantry. All other matters pertaining to the Medical Department, no matter how complicated, technical and special they may be, are in the hands of the third division of the General Staff, the composition of which is an officer of the Adjutant-General's Department, one of the Ordnance, two of the Artillery and one of the Signal Corps.

The situation suggests laughter, and yet it is serious and should engage the prompt attention of the medical profession in this country as it has in England.

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[1] Proceedings of the Pathological Society of Philadelphia, 1903, vi, [illegible]

PRINTERS AND EDITORS.

That Chicago publications are *not the only ones* that are embarrassed sometimes by strikes in the mechanical department, is evidenced by the apology for lateness of issue which the *Boston Medical and Surgical Journal* gives in a recent number. Our contemporary has our sympathy, as has also the *Journal of Medical Research*, which likewise has the misfortune (we use the word only in its application to the existing delay) to be issued in Boston. A card announces that the *Index Medicus* is also a sufferer, the annual indexes for 1903 being still unfinished. We wish our Boston friends speedy release from their handicap. Our sympathy is born of experience.

THE NEXT SESSION OF THE ASSOCIATION.

Among the sections of the United States which have in mind an endeavor to secure the 1905 session of the American Medical Association is that which includes the states of Washington and Oregon. According to an editorial in the *Medical Sentinel*, the profession of the far northwest is actively at work to secure the session for either Seattle or Portland. They are mindful of the distance from the majority of the members and of the requirements to entertain such a large body, and it may be premature for us to call attention to the matter. We do so simply to give information to others. The Association last met on the Pacific coast in 1894, and in the general rotation of geographical distribution of the place of session, the Pacific coast will doubtless be the place of session before many years pass by. The Pacific coast is a delightful place to visit, and if one may judge from the attitude of the profession of the north coast, the American Medical Association would be warmly welcomed and heartily entertained. But Oregon and Washington are a long, long way off, and the railroad fare would be a great big item, and the time spent in coming and going is not the least of the objections.

HOSPITAL CARS FOR TUBERCULOUS TRAVELERS.

The plan which it is announced that the Santa Fe Railroad will adopt of operating hospital cars especially for consumptives, would be a good idea if it were more practicable. It is said that the company finds it something of a hardship to have to disinfect its cars after known cases of consumption have used them, and it therefore proposes to isolate consumptives and bar them from the conveyances used by others. That this will work a hardship in some cases goes without saying, but it may perhaps be advisable. There is, however, a practical objection which the company can not meet, and that is, unless they have some inspection methods and even a tuberculin test beforehand, the hospital cars will be occupied only by the most advanced cases, while the milder forms, which may be equally communicable, will pass unrecognized in the regular Pullman coaches. Probably one person in every two is at one time or other in his life affected with tuberculosis and may be capable of conveying it to others. Though the chances of this are probably greatly exaggerated, it would be a satisfaction to many to know that consumptives are not allowed to ride on Pullman cars. We must repeat that we have doubts as to the effectiveness of the proposed arrangement; what would be more practical and more humane would be a more sanitary, if less gaudy, car, even though this would necessitate the elimination of the unnecessary upholstery and other germ-carrying furnishings.

LEGISLATION FOR FREAKS AND FRAUDS.

Every little while some member of a state legislature furnishes amusement by introducing a freak bill as evidence of his mental aberration, incompetency or idiosyncrasy. One of the latest is a bill introduced into the Iowa legislature to legalize a new school of healing to be called "psychiropathy," apparently a sort of catch-all, to take in everything except the schools of medicine that are already recognized by the law. Eddyism, Dowieism, vitopathy, sarcic psychology—whatever that is—chiropractic, hypnotism, etc., are all lumped together with the Swedish movement cure, and hydropathic treatment under this general designation of psychiropathy. The results would, of course, be to let in every kind of fraud, quackery and delusion that can creep in under this comprehensive head. We have too much confidence in the good sense of the Iowa legislators to think that the bill will go through. There is even a suggestion that it is introduced as a sort of sarcasm, with no idea of its passing. It is well to be on the lookout for everything of this kind, however, for there is no telling in what way the humbugs will show up, and legislative sessions are too often perilous times for good government.

THE DISINFECTION OF PAPER MONEY.

A proposition has been made that banking institutions disinfect all paper currency which passes through their hands. This proposition is made in all seriousness, and is worthy of commendation. If there is any value in disinfection, and if it is worth while to attempt to avoid contagion, it seems a little remarkable that we regularly and willingly undergo the dangers from a medium that is a good contagion carrier, that passes through all kinds of hands, and that consequently favors the spread of disease. No sanitarian would refuse a ten-dollar bill, however tattered and infected, not even from the hands of one whose sanitary condition is obviously unwholesome; and who can tell through whose hands it passed before? It is not too much to say that the fight against tuberculosis and other infectious diseases will result only in partial success if the danger from paper currency is not recognized. Of course, even though the banks disinfect all such currency, there will still be the danger from the interchange among individuals. At the same time, the disinfection by wholesale, if we may so put it, by the banks will surely do much good. The expense will be very small, and the evil possibilities that will be lessened are hardly calculable.

THE DANGERS OF THE BATH.

In the onward march of medical progress there come frequent warnings against established customs, and we are admonished that this or that habit is exceedingly dangerous, and we accordingly mend our ways. These behests of science not infrequently meet remonstrance, in spite of the columns of statistics, bacteriologic slides and case histories. For some time we have boiled the water that we drink, now we must boil the water in which we bathe. An Indian confrère[1] warns against the careless practice of bathing in typhoid-laden water, and declares that access to the mucous cavities during immersion is comparatively easy to the little bacteria. To treat the matter seriously, here is a real danger, much greater in India, perhaps, and wherever water is badly infected, but a present danger in all typhoid-infected water. Just how much possibility of infection there may be in the entrance of a few ounces of water into mucous cavities will depend on the virulence of the germs and the resistance of the system. If we approve the warnings to wash raw vegetables in boiled water, to use pure ice, to brush the teeth in boiled water, it naturally follows that to be perfectly consistent and safe one must bathe in water that has been boiled.

THE PANAMA CANAL COMMISSION'S SANITATION PROBLEM.

For reasons that are not entirely within our cognizance, President Roosevelt has not granted the petition of the medical profession that he would appoint a medical sanitarian on the Panama Canal Commission. Without wishing to criticise, we naturally regret this, but we still trust that the sanitary necessities of the case will be provided for—not superficially but efficiently. The history of the earlier work on the Panama isthmus is enough to convince anyone that the first question of all is that of sanitation. The mortality may be enormous, and the responsibility therefore appalling. What can be done now that the commission is fully appointed is to insure that a hygienic administration under a competent and tried sanitary director be installed from the beginning. The head of the department should be a man who is thoroughly competent as regards both scientific attainment and executive ability; he should also be endowed with absolute authority and responsibility for everything that may bear on the health of the working force and for the sanitary conditions generally. We are not without men who fill the requirements. Major Gorgas, who was recommended by the medical profession as a member of the canal commission, is one of them. His work in Havana is good evidence of what he could do in even a wider field. Possibly just as satisfactory an arrangement as to have a single medical man on the commission may be secured if its members are fully aware of the needs and appoint a competent director of sanitation, in whom they have sufficient confidence to give him full authority and responsibility in sanitary matters. We trust this will be the case. If some such effective arrangement is not made, every member of the commission will be responsible for the lives that are lost. That the mortality and sickness can be reduced to a minimum is sufficiently evident with our present knowledge of tropical diseases, and that, on the other hand, it can reach a maximum that will be paralleled only by former experience in the same region is equally evident. The responsibility of the commission regarding this matter is a great one, and we trust that it will fully realize it.

THE ETHICS OF EATING.

The influence of the mind over the body is perhaps nowhere better illustrated than in the relation between psychic conditions and digestion. We recently emphasized the value of the deliberate and thorough mastication of food, and took occasion to say that how one eats is often of more importance than what one eats. In the treatment of dyspepsia, it is important to secure freedom from anxiety, pleasant surroundings and such other accompaniments as conduce to enjoyment in eating. Pawlow's classical experiments on gastric secretion in dogs led him to some important conclusions on this subject. One of them is that food eaten without relish and without appetite, although in itself most nutritious and supposedly easy of digestion, may remain for hours in the stomach undigested. The same result often follows when food is eaten while the mind is diverted to other things, especially in case of anger, anxiety, preoccupation, etc. Pawlow says that the old and imperative requirement that food should be eaten with interest and enjoyment is the most emphasized and strengthened of all of his conclusions. Thus food which is nutritious and of the best quality may remain undigested because it lacks presentation in an attractive form or is served amid unpleasant surroundings. Pawlow even says a good word for the preliminary cocktail or the use of some alcoholic in small amounts, as these, by producing slight exhilaration, divert the mind from unpleasant surroundings, and may enable one to forget cares and worries. It is hardly necessary to suggest, however, that this remedy may be more harmful than otherwise. But the enjoyment of eating is the important factor, and of many harmless means to secure this end, it matters little which means is used provided the end be secured. It is well to call attention again to this well-known fact; here is the solution of many an indigestion problem, especially among business men in cities. The psychologic factor in this important function is not to be forgotten.

DESTRUCTION OF WEAKLINGS AN IMPOSSIBLE PROPOSITION.

A little while ago a distinguished educator was reported to have publicly favored destroying the weaklings in society. It was a rather remarkable and not altogether pleasant sequence, if we may judge by the published interviews, that a number of persons were found who supported the alleged views. It is of interest in this connection to note that a London physician is said to have advocated the cessation of all attempts to prevent suicide, particularly on the part of the insane, because this would make for public economy and for the general improvement of the race. The survival of the unfittest is a perennial problem of our civilization, but to our credit be it said that there are few who would be willing to have the problem evaded in the way above suggested. The higher moral considerations, we believe, will always prevail; the care of the helpless and the defective in any community may be taken as the index of

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1. Beevor: Indian Medical Gazette, October, 1903.

its grade of civilization. Parental and familial love are concentrated on the weak child, and even in the lower animals mother love is often intensified toward the crippled or weak offspring. The attribute of compassion makes this barbarous proposition impossible to consider seriously, but our compassion is superficial if it does not impel us to prevent, as far as possible, the increase of the number of the helpless. There are many evil tendencies to be combated. Even the castration of habitual criminals and the exclusion from the right to marry of those who are mentally, morally and physically unfit, are measures a hundredfold more acceptable than such a return to barbarism as killing off the unfortunate. It would undoubtedly have some effect on the production of this class of degenerates if justice were a little more certain, and if the worst forms of moral degeneracy were discouraged by the strong arm of the law more than is now the case. It is a curious inconsistency of the public that it is so tender to criminals as regards capital and even lesser punishment, while it will listen to and coolly discuss such propositions as that of deliberately killing off the physically and mentally weak and unfortunate.

THE RELATION OF ACID-FAST BACILLI TO THE TRUE TUBERCLE BACILLUS.

Since the discovery of the timothy bacillus by Moeller in 1897, a good deal of attention has been directed to the group of so-called "acid-fast" bacilli, especially as regards their relation to the tubercle bacillus. The occurrence of certain acid-fast bacilli in milk and milk products, and the occasional presence in the sputum, in pulmonary gangrene, of other varieties, will be recalled as circumstances which at first led to mistaken bacteriologic diagnoses. In recent years the bacteria of this group have been well studied, both from the bacteriologic and the histologic standpoint, and differences between them and the true tubercle bacillus have been brought out; differences which, from the histologic standpoint, are rather slight. Moeller, who has consistently studied the acid-fast bacilli in their relation to the tubercle bacillus, and who can rightfully lay claim to an authoritative knowledge of the subject, has presented in a recent article[1] some very interesting facts concerning active immunization against tuberculosis by means of inoculation with bacilli of the acid-fast group. His work is based on the assumption that the acid-fast bacilli are closely allied to the true tubercle bacillus. Reasoning from analogy with vaccinia and smallpox, he advances the idea that it may be possible to produce immunity against tubercle bacilli by inoculation with some of the relatively harmless varieties of acid-fast bacilli. As far as animals are concerned, he has, in fact, shown this to be the case. He shows that the members of the acid-fast group vary greatly in pathogenicity for animals, the least pathogenic being the timothy bacillus and his grass bacillus II, and the most pathogenic his "pseudoperlsucht" bacillus. Between these two lie the milk bacillus and the smegma bacillus, the bacillus of blind-worm tuberculosis, and the drug bacillus, in order of pathogenicity. By means of inoculations with his "pseudoperlsucht" bacillus, he was able to produce a high degree of immunity against tubercle bacilli, both in rabbits and in guinea-pigs. He further showed that tuberculin made from the timothy bacillus and the bacillus of blind-worm tuberculosis caused a reaction in both tuberculous men and cattle, which differed only in degree from the true tuberculin reaction. Taken in conjunction with the work of Koch, who showed that tubercle bacilli could not be distinguished from acid-fast bacilli by agglutination tests, these facts seem of great importance, and suggest that a new field of investigation, looking toward the prevention, if not the cure, of tuberculosis, lies open. Moeller goes so far as to suggest that in his bacillus of blind-worm tuberculosis we may have an agent which is harmless to man, as it does not tend to produce progressive lesions, and which may lead on inoculation to immunity to tuberculosis.

INORGANIC ANALOGIES WITH THE REACTIONS OF IMMUNIZING BODIES AND ALLIED SUBSTANCES.

Strong efforts are being made to bring the work on immunity more and more into the domain of pure chemistry. We have referred in previous issues to Kyes' discovery that lecithin, a tolerably well-known chemical body, may act as a complement. Some recent work by Landsteiner and Jagić[1] indicates that colloidal silicic acid, an inorganic substance, may, under certain circumstances, play the part of an amboceptor or intermediary body. These authors find that colloidal silicic acid in extremely feeble concentration will agglutinate the red blood corpuscles of the rabbit very much as do the organic agglutinins. Thus a 2.5 per cent. suspension of rabbit's corpuscles is agglutinated by a solution of colloidal silicic acid containing only 0.0005 to 0.0001 parts per 1,000. The colloidal solution, like the organic agglutinins, is rendered inactive by the application of heat. The corpuscles agglutinated by silicic acid are not hemolyzed, but if lecithin be added in very dilute solution hemolysis occurs. If too much silicic acid be used the hemolysis is diminished or may not occur at all, analogous to the complement-deviation (Ablenkung) of Neisser and Wechsberg. Fresh blood serum also affords the necessary complement for the hemolysis of silicized corpuscles. The evidence is, therefore, strongly in favor of an amboceptor-like action of the colloidal silicic acid. Someone should now undertake to determine whether or not colloidal silicic acid will unite directly with lecithin to form a body comparable with the crystallizable "lecithid" obtained by Kyes by the union of the amboceptor of snake-poison with lecithin, and a further attempt might be made to effect a union between one of the complements occurring naturally in the blood serum and the colloidal silicic acid, and to separate this compound as a pure substance. Once the chemistry of immunity has been brought into the realm of substances which can be satisfactorily analyzed, the possibility of constitutional formulæ becomes alluring. Should this be realized, we shall have made a long step toward the direct synthesis of the immunizing substances, a Mecca of the pharmacology and therapy of the future.

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[1] Zeitschrift für Tuberkulose, vol. v, No. 3.

[1] K. Landsteiner und H. Jagić: Ueber Analogien der Wirkungen kolloidaler Kieselsäure mit den Reaktionen der Immunkörper und verwandter Stoffe. Wien. klin. Wochnschr., vol. xvii, 1904, p. 63.

Medical News.

CALIFORNIA.

More Plague.—During February 6 cases of plague were reported in San Francisco, with 4 deaths. Provisional diagnosis was made in 5 of the cases.

Fire in County Hospital.—A fire which broke out in the San Bernardino County Hospital, February 20, did damage amounting to $6,000, and endangered the lives of a number of patients, all of whom were removed without casualty.

New Hospitals.—The Sisterhood of Mercy will soon establish a hospital at Barber, and one at Stirling City. It is understood that the president of the Diamond Match Company has donated $1,000 and a site for each of these hospitals.

January Deaths.—The deaths for the month in the state, exclusive of San Francisco, were 868, equivalent to an annual death rate of 15.96 per 1,000. Tuberculosis caused 165 deaths; pneumonia, 125, an increase of 25 per cent. over the preceding month; heart disease, 83; stomach disease, 55, and cancer, 39.

Personal.—Dr. Charles F. Craig, U. S. Army, delivered the Lane lecture at Cooper Medical College, San Francisco, February 19, on "Water as a Carrier of Disease."——Dr. Ray L. Wilbur, Stanford University, who is now studying in Germany, has resigned from the faculty of the university and will enter private practice.——Dr. Auren A. Stafford has been elected president of the Alameda Board of Health.——Dr. Robert V. Day has been appointed city chemist of Los Angeles.——Dr. Samuel E. Latta has been elected president, and Dr. Sylvester B. Davis secretary and health officer of the Stockton Board of Health.

DISTRICT OF COLUMBIA.

New Naval Hospital.—The contract for building the new naval hospital at Washington has been awarded. The bid for constructing the six buildings, including the administration building, was $141,900.

Personal.—Dr. Robert Perkins, senior resident physician at Emergency Hospital, has resigned to become resident physician at the New York Lying-in Hospital. He has been succeeded by Dr. Thomas F. Lowe. Dr. Perkins was presented with a handsome pocket surgical case by the physicians and nurses of the hospital on January 30.

Fined and License Revoked.—Dr. James C. Dowling was recently fined $10 for neglecting to report a case of diphtheria to the health department.——The medical supervisors of the district have revoked the license of Dr. Sigmund A. Czarra, to practice medicine in the district on account of unprofessional conduct in the alleged distribution of objectionable literature.

New Qualifications for Practice.—Senator Clay has introduced a bill providing that all physicians who have practiced medicine in any state of the United States for ten years or more, and who can furnish certificate of good character from the states in which they have practiced, shall be allowed to practice in the District of Columbia without examination on payment of the fee.

To Limit Communicable Disease.—A bill has been introduced in the senate to provide for the further prevention of the spread of communicable diseases, by requiring the physician in charge to notify the district health officer of each case of measles, whooping cough, chicken-pox and cerebrospinal meningitis, in addition to the diseases already listed, and furthermore to send a second notice when each patient has fully recovered. A fine of $100 or imprisonment for 30 days is the penalty provided for violation.

ILLINOIS.

Personal.—Dr. Joseph P. Comegys, Rock Island, has been appointed local surgeon for the Burlington system, vice Dr. Calvin Truesdale, deceased.

Scarlet Fever in Murphysboro.—It is reported that there have been more than one hundred cases of scarlet fever in Murphysboro in the last four weeks, and that thus far ten deaths have occurred.

Menaced by Diphtheria.—Lake City, a town near Mattoon, is suffering from an epidemic of diphtheria. All infected houses are quarantined, public schools have been closed, and public gatherings prohibited.

Examination Postponed.—The examination of candidate medical officers for the National Guard has been postponed until April 30. All desiring to take this examination should make application to the Surgeon General through military channels. The examination will he held at Rush Medical College, Chicago, beginning at 9 a. m.

Chicago.

Thousands for Hospital.—By the will of the late Thomas D. Lowther a sum of not less than $20,000 from the residue of the estate is devised to the Augustana Hospital.

Predicts Increase in Disease.—The report of the director of the Municipal Laboratory justifies the Department of Health in foreboding an increase in influenza, pneumonia and the impure-water diseases during the next few weeks.

Deaths for the Week.—In the week ended February 27, 674 died. Of these 151 died from pneumonia; 60 from consumption; 60 from heart disease; 46 from violence; 37 each from Bright's disease and bronchitis, and 32 from cancer.

Smallpox.—Two migrant cases of smallpox were sent to the Isolation Hospital last week. Both came from Pennsylvania; one had never been vaccinated and the other was vaccinated 40 years ago. There are now three cases at the hospital; at this time last year there were 59.

To Stop Spitting.—It is rumored an order has been passed by the City Council ordering the police to arrest all expectorators on sight. More than three years ago an ordinance was passed prohibiting spitting on the floors of public conveyances or public buildings. It is still in force, but not enforced.

Continued Cold Kills.—For the four weeks in February the death rate has progressively increased as follows: Week ended February 6, 15.92 per 1,000; February 13, 17.68 per 1,000; February 20, 17.41 per 1,000, and February 27, 18.02 per 1,000. This high mortality is due to the protracted cold weather; it is not so high, however, as the rate during the corresponding weeks of 1903.

Must Dilute Carbolic Acid.—The number of suicides from carbolic acid, and the ease with which this poison can be obtained without the prescription of a physician, has led to the drafting of an ordinance by the Retail Druggists' Association which contains the following provisions:

> Every druggist or other person who shall sell or give away any carbolic acid or any solution thereof containing more than 5 per cent. of carbolic acid, without the written prescription of a physician, except as hereinafter provided, shall be fined not more than $25 for each neglect.
>
> It shall be lawful to sell without the prescription of a physician a mixture containing equal proportions of carbolic acid, glycerin and alcohol.

INDIANA.

Smallpox.—During January 569 cases were reported from 37 counties, with 8 deaths. In January, 1903, there were 921 cases in 56 counties, with 50 deaths.

Physician's House Burned.—The house of Dr. Joseph Gardner, four miles south of Bedford, was burned to the ground, February 20. The loss exceeded $15,000, with only a small insurance.

Measles Epidemic.—It is reported in the local press that Hamilton County has 1,000 cases of measles, of which fully one-half are in Noblesville. Only one death has occurred. Several schools have been closed on account of the disease.

The Kluge Case.—Dr. William Kluge, Indianapolis jail physician, who was on trial for practicing medicine without a license, was found guilty by the jury and fined $50. He says he will appeal to the higher courts. Meanwhile the county commissioners have removed Dr. Kluge from his position and have appointed Dr. Harvey Hadley in his stead.

January Deaths and Disease.—There were reported 3,177 deaths in Indiana in January, an annual rate of 14.8 per 1,000. In the corresponding month last year there were 2,910 deaths, a rate of 13.2 per 1,000. Tuberculosis caused 408 deaths; typhoid fever, 38; diphtheria, 45; scarlet fever, 25; measles, 38; whooping cough, 7; pneumonia, 540; diarrheal diseases, 23; cerebrospinal meningitis, 41; influenza, 50; puerperal fever, 15; cancer, 103; violence, 132, and smallpox 8. The city death rate was 18.8 per 1,000, and that of the country 12.8 per 1,000. The cities showed a higher rate than the country in tuberculosis, typhoid, diphtheria, scarlet fever, pneumonia, diarrheal diseases, cerebrospinal meningitis, puerperal fever and violence, while the country rates were higher for measles, whooping cough, influenza and cancer. Tonsillitis was the most prevalent disease and measles the next most prevalent. Pneumonia stands fourth in the list of diseases, and caused 540 deaths. Cerebrospinal meningitis was the least prevalent. The reports show more typhoid fever than is usual in January. A complete summary shows that the public health in January, 1904, was not so good as in January, 1903.

IOWA.

Hospital Fair a Success.—The fair at Carroll for the benefit of Mercy Hospital netted more than $5,000 for the building fund.

Economic Move.—To reduce expenses the Sioux City College of Medicine, on May 1, will move from the Y. M. C. A. building back to its old quarters at Fourteenth and Jones streets.

Personal.—Dr. Fred W. Powers, Waterloo, has been elected president of the State Board of Medical Examiners, in place of Dr. Charles B. Adams, Sac City, term expired.——Dr. H. C. Hull, Crawfordsville, was badly hurt, February 10, by his horse slipping on the ice and falling on him.

Appropriation for State Institutions.—The house of representatives has passed the following appropriations for buildings: Iowa Hospital for Insane, Mount Pleasant, $87,100; Iowa State Hospital, Independence, $109,800, and Iowa Institution for Feeble-Minded Children, Glenwood, $150,400.

Pre-nuptial Instruction Denied.—The Dashiell bill was killed, February 25, by unanimous vote on the ground that its provisions were contrary to the constitutional guaranty of liberty and the pursuit of happiness. The bill proposed to require each prospective bride and groom to appear before some physician for instruction, with a view to reduce the number of defective children.

MARYLAND.

The Title of "R. N."—A bill for the registration of trained nurses with the title of "R. N.," was introduced in the legislature February 26.

County Coroners Named.—The governor has nominated Dr. Ricketts Nelson as coroner for Cecil County, and Dr. Dennis B. O'Neal for Allegany County.

Should Physicians Issue Burial Permits?—A bill has been introduced in the legislature to authorize physicians in Baltimore County to issue burial permits. Dr. John S. Fulton, secretary of the State Board of Health, says: "There are serious objections to the same person issuing certificates of death and burial permits, and it is easy to see how serious evils would result therefrom."

Baltimore.

Library Building for Medical and Chirurgical Faculty.—The bill appropriating $100,000 for the erection of a library building for the Medical and Chirurgical Faculty of Maryland in Baltimore was introduced in the legislature, February 25, and was at once referred to the Ways and Means Committee.

Increased Illness.—There is much sickness and a high death rate is noted. An examination of the reports of the City Health Department shows that the excess is due to influenza, pneumonia, bronchitis, chicken-pox, scarlet fever and whooping cough. In the week ended February 20 there were 47 deaths from pneumonia alone, and for the week ended February 27 50 deaths.

Smallpox in Lodging House.—Two cases of smallpox, both unvaccinated, were discovered at an overcrowded home for poor lodgers on February 23. The house has 400 beds and 700 inmates. The two were sent to quarantine and a large force from the health department, in spite of resistance, vaccinated all the inmates who could be caught. The place was fumigated and two other suspects were sent to the House of Detention.

Governor Nominates Coroners.—Governor Warfield has nominated to the legislature the following as coroners for Baltimore: Dr. G. Milton Linthicum, northern district; Dr. C. Frank Jones, southwestern district; Dr. Benjamin S. Hayden, central district; Dr. Otto M. Reinhardt, southern district; Dr. Silas Baldwin, northwestern district; Dr. Frederick Caruthers, northeastern district; Dr. Patrick F. Martin, western district; Dr. Thomas H. Sudler, eastern district, and Dr. James D. Iglehart, at large. The city coroners are named by the city senators. Drs. Jones, Baldwin, Martin and Reinhardt represent reappointments; the rest are new men.

Hospitals Overcrowded.—The University and City hospitals are overcrowded. At the former cots have been placed in the public wards, and private accommodations have received a double number of patients; still many have had to be turned away, and it is proposed to utilize the nurses' sitting-room for a ward. It is said that many of the patients under ordinary circumstances would have been treated at their homes, but the fire has made it necessary for them to seek a hospital. Cots have also been utilized at the City Hospital. The hospital authorities feel so grateful for the saving of their institution and the ready help offered in removing their inmates when the fire threatened that they are willing to submit to any crowding or inconvenience in order to serve the community.

MASSACHUSETTS.

Hospital Bequests.—By the will of George B. Upton, Milton, the Massachusetts General Hospital receives $10,000 and the Massachusetts Charitable Eye and Ear Infirmary, $5,000.

Personal.—Dr. George W. Ryan, senior interne at the Calvin Emergency Hospital, Brockton, was operated on for appendicitis, February 23.——Dr. Thomas B. Shaw, Worcester, has returned from a trip to England.

Medical Inspectors Elected.—The Cambridge Board of Health has re-elected Drs. W. H. Clancy, William E. Fleet, Nelligan, Thomas J. Leahy, Eugene A. McCarthy and Francis J. Barnes, medical inspectors of schools, and has elected Drs. Charles M. Hutchinson, Myron L. King and L. Arthur Moll, to fill vacancies on the staff.

District Nurses in Boston.—The annual meeting of the Instructive District Nursing Association showed that a successful work had been done, but disclosed an excess of expenses over receipts during the past year of more than $1,300. Eleven nurses were employed on the districts of the Boston Dispensary District physicians, one works in Cambridge, and three are obstetric nurses.

Institutions Need Money.—The Boston Board of Trustees for Pauper Institutions has applied to the mayor and aldermen for a grant of $210,000 to be expended in building an addition to the hospital and an addition to the power plant. This board was severely criticised last fall by a majority report and completely exonerated by a minority, as a result of a prolonged investigation. In view of this action there will probably be difficulty in securing this grant, which is so much needed.

NEW YORK.

Health of Albany.—The January mortality of Albany was at the annual rate of 14.50 per 1,000. Only 4 cases of typhoid fever were reported, with one death.

Smallpox in Owego.—The president of the Owego Board of Health announces that there are several cases of smallpox in the city, and his report is confirmed by the secretary of the State Board of Health.

Hospital Open.—St. Peter's Hospital, Albany, has opened its new addition, which has been erected at a cost of about $60,000. The building is four stories high and contains five wards, a large operating room, solaria, and a roof garden.

Only Two Passed Examination.—Of the five candidates for the position of superintendent of the new State Hospital for Consumptives, Raybrook, Drs. John H. Prior, Buffalo, and Frederick L. Hills, Binghamton, alone passed the examination. The other three failed on the practical diagnosis of tuberculosis by examination of patients.

Personal.—Dr. Dennis Lucey, formerly physician to the Elmira Reformatory, who is ill with tuberculosis, has been removed to a private sanatorium.——Dr. James N. Vander Veer, Albany, was recently operated on for appendicitis.——Dr. Henry E. Clarke has succeeded Dr. Lemon Thomson as health officer of Glens Falls.

New York City.

Dr. Delafield Ill.—Dr. Francis Delafield is reported to be ill with pneumonia, but it is said that his condition is steadily improving.

Charity Ball.—The Nursery and Child's Hospital will receive about $8,000 as the proceeds of the twenty-fourth annual charity ball recently held at the Waldorf-Astoria.

Conrad Again Indicted.—Dr. Edward E. Conrad was rearrested, February 19, on the same charge which was dismissed by the grand jury two days before. Bail was fixed at $10,000.

Personal.—It is announced that Dr. Frederick Peterson has resigned as a member of the State Commission in Lunacy. Dr. Peterson is the president of the board.——Dr. Emil Mayer has been appointed adjunct attending laryngologist to Mount Sinai Hospital.

County Medical Society Hears Mayo.—Dr. William J. Mayo, Rochester, Minn., read by invitation an article on "Indications for, and Result of, Operations on the Common Duct of the Liver" before a large and enthusiastic meeting of the New York County Medical Society, February 29.

Will Examine Gas.—The coroners from New York and Kings County report that in the last thirteen months deaths from asphyxiation in New York City were 76, and in Kings County 72. An analysis of gas made by the city chemist shows that it contains 24.34 per cent. of carbonic acid. According to Charles E. Doremus of the College of the City of New York, 12 grains is sufficient to kill the average man. Accordingly Senator Martin has introduced a bill calling for an investigation of the gas situation in New York City.

Buffalo.

Personal.—The board of aldermen has increased the salary of Fire Surgeon O'Brien from $1,500 to $2,000.——Dr. William R. Pryor of New York City was recently given a dinner by D. Matthew D. Mann.

High Winds and Intestinal Diseases.—Health Commissioner Greene has sent out circulars of inquiry among the physicians asking for information concerning the effect of high winds on the lake on intestinal diseases. It is his theory that because of the winds the water in the Niagara river, the source of Buffalo's water supply, becomes filled with sand, which produces irritant effects on the mucosa of the stomach and intestines.

Anti-Vaccinationist Active.—Officials of the health department assert that H. E. Sturdevant, who recently lost a law suit against the city, in which he claimed $25,000 damages for the death of his six-year-old daughter, on the ground that she died as a result of compulsory vaccination, is circulating a petition about the country in which he asks financial assistance to enable him to prosecute his suit. Lucille Sturdevant died after having been vaccinated while she was a pupil at one of the public schools. A stone erected over her grave in Forest Lawn Cemetery states that she died of compulsory vaccination. The petition circulated by Sturdevant purports to have the endorsement of the Anti-Compulsory Vaccination League of New York City.

Typhoid in Buffalo and Elsewhere.—The census report of the United States on typhoid fever shows that Buffalo is quite as free from typhoid fever as are other cities of its class. The death rate in Pittsburg from the disease in 1901 was 124.7 per 100,000, Allegheny 100.8 per 100,000. The other cities of the union which have a greater proportion of deaths per 100,000 than has Buffalo are as follows: New Haven, Conn., 92; Charlestown, S. C., 73.8; Washington, 67.3; Atlanta, 61.7; Minneapolis, 57.6; Troy, N. Y., 57.3; Louisville, 56.3; Cincinnati, 53.5; Denver, 47.9; New Orleans, 47; Nashville, 45.5; Kansas City, 42.9; Reading, Pa., 42.7; Wilmington, Del., 42; Cleveland, 35.9; Columbus, 35.5; Richmond, 34.8; Grand Rapids, 34.7; Salt Lake City, 34.5; Philadelphia, 33.3; St. Louis, 33.3; Hartford, 36; Scranton, 30.1; Toledo, 0.30; Los Angeles, 29.1; New Bedford, 28.8; Indianapolis 27.4; Baltimore, 27.3; Paterson, N. J., 27; Buffalo, 26.8. The two cities larger than Buffalo having a lower death rate of typhoid fever are New York, with a death rate of 20.3 per 100,000, and Boston, with 24 per 100,000, and in Buffalo's class San Francisco, with a death rate of 20 and Detroit with but 15.7 per 100,000. During 1902 and 1903 Buffalo's death rate from typhoid was increased because of an epidemic at West Seneca. The disease spread among workmen constructing the steel plant so that many of them living in Buffalo contracted the disease or were brought to the hospitals of the city for treatment. For 1902 the death rate from typhoid, accordingly, was increased to 35 per 100,000, and during 1903 was 33 per 100,000. At present the city is free from the disease.

PENNSYLVANIA.

Physician Stricken.—Dr. David L. Bailey, Carbondale, recently had a cerebral hemorrhage. He is now making satisfactory progress toward recovery.

Bequest to Philadelphia Hospital.—By the will of Mrs. Elizabeth Solliday, Doylestown, $1,000 is bequeathed to the Presbyterian Hospital and Dispensary, Philadelphia.

Physicians Majority of School Board.—The school board of Wilkesbarre consists of six members, two of whom, Drs. Charles Long and Boyd Dodson, are newly elected, and two other physicians are hold-over members.

Will Not Shave Consumptives.—By the new rules of the Altoona Board of Health barbers are no longer permitted to shave consumptives in the communicable stage of the disease. It is not stated whether or not rules for differential diagnosis are made part of the new regulations.

Report of Butler Epidemic.—The State Board of Health has ordered printed 5,000 copies of the report of Dr. Wilmer R. Batt, state quarantine officer, on the typhoid epidemic in Butler. These are to be distributed throughout the state for information and guidance of health and other authorities in dealing with this disease.

Pennsylvania Leads in Smallpox.—Pennsylvania has the unenviable distinction of having within its borders more smallpox cases than any other state. From December 20 to January 23 there were in Philadelphia alone 387 cases, with 120 deaths, and in Allegheny County 112 cases and 26 deaths. Lack of authority to cope with the disease is stated to be the cause of its prevalence.

Election.—At the annual meeting of the Butler County Medical Society held in Butler, January 13, the following officers were elected: President, Dr. W. Rush Hockenberry, Slippery Rock; vice-president, Dr. Willard B. Campbell, Harrisville; secretary, Dr. William B. Clark, Butler; treasurer, Dr. M. Edward Headland, Butler, and censor, Dr. Harvey D. Hockenberry, West Sunbury.

Philadelphia.

Would Not List Consumption.—Compulsory registration of tuberculosis as a contagious disease was voted down by the Philadelphia County Medical Society by a tie vote.

Resignations.—Drs. John H. Musser and J. Chalmers Da Costa, medical civil service examiners, have resigned.——Dr. H. F. Dietrich, resident physician at the Samaritan Hospital, has resigned.

Hospital in Quarantine.—St. Luke's Hospital was placed under strict quarantine by the chief medical inspector of the Bureau of Health, February 23, as two cases of smallpox had developed among the nurses at the institution. The two nurses were removed to the Municipal Hospital.

Alumni Dine.—On February 20 the alumni of the medical department of the University of Pennsylvania held their annual banquet. Dr. George E. de Schweinitz acted as toastmaster, and Surgeon-General Robert M. O'Reilly, U. S. Army, and Drs. George W. Guthrie, Wilkesbarre, and Horatio C. Wood, Aloysius O. J. Kelly and Roland G. Curtin of Philadelphia responded to toasts.

Crile in Philadelphia.—Dr. George W. Crile, Cleveland, delivered an address at Jefferson Medical College, February 23, on "Some Observations on the Surgical Physiology of the Vascular System." In the evening he was the guest of honor at the tenth annual banquet of the W. W. Keen Surgical Society, at which about 60 were present, Dr. Hobart Amory Hare officiating as toastmaster.

Med.-Chi. New Hospital Open.—The new buildings of the Medico-Chirurgical Hospital, replacing those destroyed by an explosion a year ago, were thrown open February 23. The formal ceremonies consisted of the presentation of the buildings to the board of directors by ex-Mayor Charles F. Warwick, the acceptance on behalf of the board by Hon. Abraham M. Beitler, and an address by Attorney-General Hampton L. Carson, on "Advance in Medicine."

Health Report.—Typhoid fever is on the increase, and the health bureau announces for the week ended February 27 148 new cases, the greatest number recorded in any week during the year. The disease seems to be prevalent throughout the city and is not confined to any one portion. As a result of the prevalence of typhoid the city's death-rate is also greatly increased, 23 deaths being reported from this cause alone. This is an increase of 11 over the preceding week. There is a notable decrease in the number of smallpox, diphtheria and scarlet fever cases reported for the past week. The total number of deaths reported for the week was 693. This is an increase of 88 over the previous week, and 54 over the same period last year.

Grateful to Carnegie.—The fellows of the College of Physicians of Philadelphia, as a token of their appreciation of the largest gift ($50,000) to the college in the 116 years of its existence, have authorized the president, Dr. Horatio C. Wood, and the vice-president, Dr. Arthur V. Meigs, to express the thanks of its members to Andrew Carnegie, the benefactor; also to inform the donor that, by a resolution of the college, a suitable tablet is to be placed in the college building to commemorate the generosity that has enabled them to provide for the growth of their great medical library. By the generosity of S. Weir Mitchell these sentiments have been inscribed in water colors on a beautiful artistic diploma to be presented to Mr. Carnegie.

Lectures for Medical Inspectors.—Director Martin of the Department of Health has arranged a course of lectures on contagious diseases for the benefit of the medical inspectors and of physicians at large. The course was inaugurated February 16, by lectures on the diagnosis of smallpox, by Drs. William H. Welch and Jay F. Schamberg. The succeeding lectures are as follows:

February 26.—Normal course of vaccinia, spurious results, vaccinal eruption, complications, technic and vaccination scars.

March 4.—Symptomatology and diagnosis of scarlatina, rubella, measles and chicken-pox.

March 11.—Skin diseases; what are apt to be confounded with the exanthematous fevers?
March 18.—Skin diseases apt to be encountered among school children.
March 25.—Leprosy and syphilis.

How to Detect Diseases of Children.—A series of lectures is now being given for the benefit of school principals and teachers. The general subject is the diseases of children and the methods of detecting them. The course commenced on February 23 and continues until March 30. The schedule is as follows:

February 23.—Introduction, with remarks on the nervous diseases of children, Dr. S. Weir Mitchell.
February 24.—"The Early Recognition of Disease," Dr. Hobart A. Hare.
March 2.—"The Eyes of School Children," Dr. George E. de Schweinitz (lantern illustrations).
March 9.—"School Life in Its Relation to the Deformities of Childhood," Dr. H. Augustus Wilson (lantern illustrations).
March 16.—"*The Efficacy of Vaccination; the Early Symptoms* of Smallpox, Scarlet Fever and Measles," Dr. Jay F. Schamberg (lantern illustrations).
Marc[illegible] "C[illegible] Skin Diseases of School Children," Dr. Jay F. [illegible] illustrations.
Marc[illegible] [illegible]litions of Ch[illegible]hood and Youth a Menace to Health." Dr. D. D. Smith.

GENERAL.

Appeal for Journal.—Dr. William Osler, president of the Association of Medical Librarians, has issued a circular appeal urging the support of the *Medical Library and Historical Journal*, the second volume of which was entered on with 1904.

Ratification in New York.—As an indication of the hearty endorsement the reorganization plan is receiving in New York State it may be mentioned that the societies of the counties of Albany, Cayuga, Chemung, Dutchess, Franklin, Kings, Monroe, Oneida, Onondaga, Ontario, Rensselaer, Schenectady, Broome and New York have ratified the plan for union of the two state bodies.

Panama and Its Sanitation.—Dr. J. C. Perry of the U. S. Public Health and Marine-Hospital Service, whose elaborate report on the Panama Canal route, its sanitary condition, needs and possibilities, has been given to President Roosevelt, describes the two extremities of the route as exceedingly unsanitary and unhealthy, but he points out that extensive filling in of swamp land, proper disposal of sewage, protection from mosquitoes, destruction of unsanitary native houses, and the installation of a supply of good water will create a different character and make the places healthy.

FOREIGN.

Organization of the Profession in Germany.—The successful outcome of the united stand taken by the physicians at Cologne, mentioned editorially in our last issue, has been followed by a similar decided victory at Krimmitschau.

Opposition to Tuberculosis Sanatorium.—The Paris authorities were on the point of commencing the construction of a model tuberculosis sanatorium at Montmorency, an ideal site, on ground offered by the Duke de Dino, when the surrounding property owners officially protested and the project has been abandoned for the present.

The Chair of Surgery at Vienna Filled.—Prof. Julius Hochenegg of Vienna has been installed in the II chair of surgery at Vienna, vacant since Gussenbauer's death. Several German professors had refused the place, and after Garré had accepted it the negotiations were broken off at the last minute. Hochenegg is 43 years old, a pupil of Albert's.

Yellow Fever Expeditions to South America.—Drs. E. Marchoux and P. L. Simond of the Paris Pasteur Institute, arrived in Rio Janeiro, February 17, to study yellow fever. A fund has also been raised by the merchants and wharf owners of Hamburg to send Drs. Otto and Neumann of the Institute for Tropical Diseases to South America to study these diseases on the spot.

Some Anniversaries Among Our German Confreres.—Professor Edwin Klebs, the eminent pathologist, well known to Americans, celebrated his seventieth birthday February 6. The *Corr.-Blatt f. Schweizer Aerzte* does homage to him as its founder and first editor thirty-four years ago.——Professor Ernst Haeckel of Jena spent February in Italy to escape the celebration of his seventieth birthday, on the 16th, with which his friends were preparing to honor the world-wide fame of the great biologist.——The Vienna Medical Faculty is soon to renew the medical diploma conferred fifty years ago on Professors Weinlechner, von Valenta and Haas.

Alleged Origin of Syphilis.—At the last meeting of the German Society for the Prevention of Venereal Disease, held at Berlin, February 5, Professor Iwan Bloch delivered an address on the "Origin of Syphilis," to which he has devoted years of study. He stated that nothing has been discovered in history or prehistoric remains to indicate that syphilis was known in Europe until after it was brought from America by the Columbus expeditions. He asserts that it then ravaged Europe with the malignancy of a newly imported disease, while it had long existed on the western continent. From this view of syphilis as the "specific disease of modern times" he drew conclusions favorable to the prospects of its final extermination in time, in which Virchow, among others, firmly believed.

Expositions of Home and Municipal Hygiene.—The Germans have been holding some interesting exhibitions of articles and appliances connected with the hygiene of the home, the school, the workshop and the city. It has been found that these exhibitions are very instructive for the general public, and attract much attention and interest. Berlin has a permanent exhibition of everything tending to promote the welfare of the workingman at home and at work, and Dresden recently held a very popular "Cities' Exhibition," showing in detail and on a most extensive scale all that tends to promote the health of a community. The First International Congress for School Hygiene, to convene at Nuremberg, April 4, is to make a prominent feature of the exhibition connected therewith.

Campaign Against Charlatans in Germany.—At Bayreuth a charlatan has been sentenced to fourteen days' imprisonment on account of the death of two children from diphtheria under his hands. At Lubeck another charlatan, a woman, has been sentenced to one week's imprisonment and $7.50 fine. At Berlin another has been sentenced to a fine of $125 and another to eighteen months' imprisonment. At Mainz a charlatan, on account of three deaths under his procedures, was sentenced to a year's imprisonment and $125 fine, and at Torgau a barber was sentenced to a month's imprisonment for quack practices. At Trier the editor of a daily paper was fined $7.50 for inserting an ad guaranteeing the cure of deafness. He appealed the case, asserting that he supposed deafness was curable, and he was acquitted.

Poisoning from Food.—A bean salad made from canned beans caused severe poisoning among the pupils of a Darmstadt cooking school. There have already been eleven deaths. Professor Gaffky of Giessen has examined the beans and ascribes the poisoning to some bacterial toxin. He thinks that there must have been spores on the beans which survived the cooking in the can and developed in time, generating the toxin in question. Another serious and extensive intoxication was also reported elsewhere from the use of potato salad made from potatoes which had been cooked and sliced the day before.——An epidemic of lead poisoning is reported from Budapest, affecting more than 100 persons with a number of deaths. It has been traced to the kettles in certain distilleries which were lined with lead recently to shorten the process of making alcoholic drinks.

The Paris Information Bureau for Scientists.—Physicians and other scientists visiting Paris are charmed with the workings of the new Information Bureau established in luxurious quarters at the Sorbonne. They find there employes speaking English, French, Russian, German and Spanish, with every information for persons seeking opportunities for study or research, and the subjects are classified so that no time is wasted. The bureau can be reached by telephone. It is in charge of Dr. Blondel, the general secretary of the International Association of the Medical Press, who has already compiled nearly three thousand different catalogues of books, documents, lectures, etc., bearing on given subjects. The bureau has been informally open since last August, but the official inauguration occurred February 20 under the auspices of the "Conjoint Committee for the common interests of the City of Paris and of the University."

Recent Decisions of the German Medical Court of Honor.—A physician was reproved for signing a certificate testifying to the mental disease of a subject without a personal examination, merely accepting the assertions of the other physician who had examined the patient and signed the certificate with him. Another physician was reproved for "selling his practice," and another for placing two signs a yard square on his house, with the words "To the eye and ear clinic," followed by his name in smaller figures. He was ordered to use only a single sign and have nothing but his name on it, with a hand as guide for the direction. Another decision declares that it is contrary to professional ethics for a physician when his fee is paid at once to voluntarily offer to deduct a certain discount. "Such a procedure is altogether unworthy of a physician, as it places his medical services on the same plane as merchantable commodities." In another case the decision was given that a physician is under no obligations when a patient applies to him to inform the physician who has been previously treating the patient. The only exceptions are when the patient still maintains professional relations with the first physician.

Medical Congresses To Be Held in Europe in 1904.—The following is an almost complete list of the medical conventions to be held in Europe this year, except those of Italy. There may also be mentioned the Fourth Pan-Hellenic Medical Congress at Athens in May, and the French Congress of Neurology at Pau in August.

March 3-8.—Twenty-fifth German Congress of Balneology. Aix la Chapelle.

April 4-9.—First International Congress of School Hygiene. Nuremberg.

April 4-9.—French Congress of Climatotherapy and Hygiene. Nice.

April 5-10.—Fourth French Congress of Gynecology. Rouen.

April 5 9.—Third German Congress of Orthopedic Surgery. Berlin.

April 6-9.—Thirty-third German Congress of Surgery. Berlin.

April 18-30.—German Congress for Experimental Psychology. Giessen.

April 18-21.—German Congress of Internal Medicine. Leipsic.

April 25-26.—German Congress of Psychiatry. Göttingen.

May 2.—French Congress of Ophthalmology. Paris.

May 27-28.—Meeting of Inner Council of International Antituberculosis Central Bureau. Copenhagen.

July 20-24.—Tenth Quadrennial Congress of Polish Physicians and Scientists. Lemberg.

July 26-29.—British Medical Association. Oxford.

August 1-4.—Seventh International Congress of Otology. Bordeaux.

August 9-11.—Northern Congress of Surgery. Göteborg.

August 30.—Sixth International Congress of Physiology. Brussels.

September 12-17.—Fifth International Congress of Dermatology. Berlin.

September 16-19.—German Public Health Congress. Dresden.

September 17-24.—Seventy-sixth German Congress of Physicians and Scientists (Naturforscher Congress). Breslau.

September 19-21.—Tenth International Congress of Ophthalmology. Lucerne.

September 24 30.—Third International Antituberculosis Congress. Paris.

Third Week in October.—Seventeenth French Congress of Surgery. Paris.

Third Week in October.—French Congress of Urology.

Police Interference with the Russian National Medical Congress.—This occurrence was mentioned editorially last week. The congress was the Ninth Biennial National Medical Congress, "in memory of N. J. Pirogoff," and had assembled 2,136 physicians from all parts of Russia. There were 27 sections and 368 communications were presented in the course of the 2 general assemblies and the 177 section meetings. These congresses are always liberally subsidized by the national treasury, the departments of the interior and of public instruction, as well as by the local and provincial governments. The city also entertained the members lavishly. One of the principal addresses was by Lewascheff of Kazan, who asserted that the southwestern part of Russia offered peculiar advantages for the climatic treatment of tuberculosis, especially when supplemented by "that incomparable curative drink, kumiss." A health resort for the entire world ought to be organized there by the combination of these factors, but instead, dirt, discomfort, adulteration of kumiss and other disappointments prevail there. He urged the radical reorganization of kumiss therapy as the most imperative task for the profession in Russia. Professor Rasumowski of Kazan presided, and at the closing meeting, after reading the general resolutions of the congress, he stated briefly that the resolutions adopted by the various sections for certain reasons would not be read, and abruptly adjourned the congress *sine die*. Our French exchanges add—what is not mentioned in the Russian journals—that the police at once cleared the hall, and the protests of the section members and others were drowned by the loud strains of a military band. The offensive resolutions referred to the dangers of overcrowding and lack of sanitation, etc., as factors in the spread of disease. As the Jews are forced by the city regulations to live in their confined Ghetto, the demands of the hygienists in the congress conflicted with these ordinances, and the resolutions were consequently suppressed, and with them all the other resolutions of the sections.

DUBLIN LETTER.

The Irish University Question.

My last letter spoke of the history of university education in Ireland, and I shall now sketch some of the schemes which have been put forward as solutions of the problem. Although the plans for the session of parliament do not include any treatment of the question, its settlement can not be much longer postponed, as it is undoubtedly the most pressing matter in the field of Irish politics. The possible solutions of the question are not more than three or four. One is that such alterations might be attempted in the constitution of Trinity College as to render it more acceptable to Roman Catholic feeling, or, again, a teaching college under Roman Catholic management might be established in connection with the Royal University. Or finally, a new college, under Roman Catholic management, might be affiliated with Trinity College, in the existing University of Dublin. The first scheme, though best from a purely educational point of view, is probably not practicable at present, owing to the irreconcilable attitude adopted by the Roman Catholic clergy. The second scheme is more possible, but has the great objection that it will handicap the new college by connecting it with the name "Royal University," an institution admittedly a failure. In addition, the Roman Catholic laity fear lest such a college, being practically free of all Protestant influence, should be so much in the hands of the clergy as to be medieval in character. The third scheme has much in its favor, and is the one most before the public. It is supposed to be the solution suggested by Mr. Wyndham, the chief secretary for Ireland, and has gained the adherence of Mr. Mahaffy, one of the most influential fellows of Trinity College, and of Lord Dunraven, better known in America as a yachtsman, and of many Roman Catholic bishops and of a very strong body of Roman Catholic laity. The new college would have an established status at once, owing to its connection with Dublin University, whose degrees are held in respect throughout the world. The opposition to it will mostly come from the most conservative sections of Irish public opinion, and from those who fear their vested interests in Trinity College, or in its degrees, may be interfered with. Unfortunately, Mr. Wyndham and Lord Dunraven have obscured the nature of their scheme by including in it a place for Queen's College, Belfast, as a constituent college of the Dublin University. This is meant as a sop to the Presbyterian body, who practically control Queen's College. Now Belfast is some hundred and twenty miles from Dublin, and the two cities have little community of interest or sympathy of thought. It is strongly held that a university to be a university in any true sense must have a certain unity, as well of feeling and thought as of locus. If this offensive feature were dropped, there is every reason to suppose that the main outline would be accepted.

X-Rays in the Courts.

A law suit of unusual interest has just been heard in the high courts here. A child who was supposed to have a needle in his knee received repeated *x*-ray examinations to locate the needle. No needle was discovered, but a severe *x*-ray burn, resulting in an ulcer, appeared on the inner side of the knee, and took several months to heal. The examinations were actually made by an unskilled person—a mechanic—acting under the immediate supervision of the medical man, who was himself admittedly ignorant of a practical knowledge of radiography. It appears also that he did not recognize the ulcer as an *x*-ray burn, but after its formation continued to examine the knee for the hypothetical needle. Finally the child passed from under his care, and the parents, having discovered the cause of the injury, sued for damages, alleged to be due to negligence. The trial occupied seven days, and much expert evidence was brought forward on each side. Assuming the truth of the statement of the child's relatives that the *x*-ray tube had been held close to the knee for periods up to half an hour, the experts on one side gave their opinion that such application showed negligence. On the other side, it was maintained that the tube never came nearer the knee than eight or ten inches, and from the radiographs produced in court, it was held by experts, that the distance of exposure must have been at least eight inches. The jury returned a verdict for the defendants on every count, finding that there was no negligence. This is the first suit in this country for damages for *x*-ray injuries. Great interest was taken in it, not only by surgeons conversant with *x*-rays, but by the public at large, and the demonstration of *x*-rays at work in the public court caused much excitement. In fact, I have not seen such a scene in court since on one occasion some ten years ago it became necessary in the progress of a libel suit arising out of a game of cards, for counsel to demonstrate the game of poker to the presiding judge by dealing hands all round.

LONDON LETTER.

The Fate of the Ovum and Graafian Follicle in Premenstrual Life.

At the Obstetrical Society of London Dr. T. G. Stevens read a most interesting and original paper on this subject. No writer appears to have investigated the retrograde changes of ova and graafian follicles in premenstrual life. Dr. Stevens' researches are based on the examination of upward of 70 pairs of ova, obtained in the postmortem room, of children at various ages, but always under the age of 10, so as to exclude the influence of menstruation. To get satisfactory sections great pains had to be taken in hardening. The ovaries were fixed whole in a saturated solution of corrosive sublimate, and the hardening was completed in alcohol of various strengths beginning with 30 per cent. and ending with absolute alcohol. Dr. Stevens found that rupture of the graafian follicles never took place and that nothing approaching the formation of a corpus luteum occurred. The follicle and ovum mature up to a certain point, and then a kind of phagocytosis takes place by which they are destroyed. The youngest graafian follicle, which may be termed a dormant follicle measures about .0325 mm., this measurement being practically that of the ovum as the covering of the follicle consists of only flattened cells closely applied to the ovum. In the next stage of development these flattened cells proliferate and become cubical, forming the membrana granulosa. Around this the cells of the ovarian stroma become concentrically arranged and form the fibrous tunic of the follicle. Liquor folliculi then appears among the cells of the membrana granulosa. These further proliferate and form the discus proligerus. At the stage of highest development in the child the follicle is .8 mm. in diameter and the ovum is .1 mm. (half that of the adult). Retrograde changes consist in the invasion of the ovum by phagocyte cells which appear to be derived from the cells of the membrana granulosa. Other cells of this layer disintegrate without further change. Eventually granulations form in the fibrous tunic and absorb the remains of the membrana granulosa and liquor folliculi. Discussing the rationale of these changes, Dr. Stevens points out that the ovary has two functions—the production of ova and of some internal secretion necessary to the health of the female up to a certain age. The supply of ova is unnecessary in childhood, and so the follicles do not burst, but probably the internal secretion plays an important part in the development of the female child. These constant changes in the graafian follicles may be the source of this internal secretion.

Abscess of the Uterine Wall in a Woman Suffering from Gonorrhea at the Time of Labor.

At the Obstetrical Society Dr. A. Lea described the case of a woman who had gonorrhea at the time of delivery and suffered during the second week after it from severe recurrent pain in the hypogastrium, but was able to walk about. Six weeks after delivery she was suddenly seized with intense abdominal pain, followed by symptoms of acute peritonitis. Laparotomy revealed an abscess in the posterior wall of the fundus uteri, which had ruptured into the peritoneal cavity. The abdomen was irrigated and abdomino-vaginal drainage was established by a large tube. The abscess cavity and the floor of the pelvis were packed with iodoform gauze. Recovery followed. Uterine abscess is rare. In many cases perforation has taken place into the peritoneal cavity when operation was not performed. Diagnosis is often difficult. Pain associated with great sensitiveness and enlargement of the uterus should arouse suspicion, but it is often difficult to distinguish the condition from infected myoma of the uterus. If perforation occurs immediate abdominal section is indicated. If the abscess is single and one or both appendages are normal conservative surgery should be carried out. If the uterus is infiltrated with pus hysterectomy should be performed. If the uterus is not removed drainage is necessary.

Septic Arthritis of the Ankle After Mumps.

At the Glasgow Eastern Medical Society Dr. J. W. Findlay described a case of mumps in which the very rare complication of arthritis occurred. The illness lasted a week, and the temperature was never over 100. When convalescence appeared about to be established a diffuse red swelling was found in the region of the left ankle-joint. The child became ill and the temperature rose to 102. Dr. Findlay diagnosed erysipelas. Three days later he opened what seemed to be a superficial abscess below the external malleolus. Later crepitation was detected in the joint. It was opened on its inner and outer aspects. Granulation tissue, débris and small fragments of cartilage were scraped away with a sharp spoon and the joint was douched and packed with iodoform gauze. After two days a drainage tube was passed through the joint and retained for a week. Then the wounds were allowed to heal. Five months after operation movements of the joint were only slightly limited. Osler mentions arthritis among the complications of mumps.

Latin as the International Language of Medicine.

The variety of languages which exists is a great obstacle to the spread of knowledge, and the need for a universal international language has often been declared. Attempts have been made with indifferent success to provide an artificial language, such as Volapük or Esperanto. The value of the ancient languages, Latin and Greek, for this purpose has also been discussed. In the volume of the Pathological Society's Transactions just issued Mr. Shattock has made a bold attempt to solve the difficulty by prefixing summaries in Latin to his three papers. In very comprehensible, if not classical, Latin he declares that it was a serious mistake that the Latin tongue was not retained as a medium of communication for those who devote themselves to the study of natural science. How grievous was the mistake is evident to all now that the number of languages used by those who write on natural science. Hence no one can know everything written on a subject however accurate be the references given in catalogues. As the Latin tongue is almost a necessary part of a liberal education he advocates its use. A paper on "The Fatty Vacuolation of the Nucleus in Fat Cells" is thus termed: *"De Vacuolatione nuclei in Cellula Adiposa."*

A Revaccination Bill.

The Imperial Vaccination League has drafted a revaccination bill for introduction into parliament in the present year. It is proposed that children shall be revaccinated within six months of attaining the age of 12. The clause which exempts parents having a "conscientious objection" from penalties for failing to comply with the act for the primary vaccination of their children also appears in this bill.

The Institutional Treatment of Inebriety.

At the Society for the Study of Inebriety Sir W. J. Collins, surgeon to the London Temperance Hospital, and formerly chairman of the Inebriates Acts Committee of the London County Council, delivered a most interesting address on the "Institutional Treatment of Inebriety." He described the measures taken by the very progressive London County Council to treat habitual drunkards. In 1879 the first legislative recognition in this country was accorded to the habitual drunkard, who was defined as a person who, not being amenable to any jurisdiction in lunacy, is in consequence of habitual intemperance dangerous to himself or to others and incapable of managing his affairs. Licensing authorities and "retreats" were recognized. Entrance to the latter was voluntary, though once there the volunteer becomes a prisoner for the period specified. This act, though amended in 1888, did not prove a conspicuous success. The reasons were want of compulsory powers to secure the admission of dangerous and confirmed inebriates, insufficiency of the maximum period of detention (13 months), difficulties with refractory patients, escapes, etc. Accordingly in 1893 institutional treatment was provided for in certified state reformatories, supplementing the voluntary retreats. The act also enabled magistrates to substitute reformatory treatment for imprisonment of habitual drunkards who had committed crime while intoxicated or who by repeated appearances for certain scheduled offenses connected with drunkenness had shown the inefficiency of short imprisonments. Thus there are at present "retreats" which receive private patients who have made requests but who do not sign away their liberty by any form, and which also receive those who submit to compulsory detention for a period not exceeding two years, certified inebriate reformatories established by local authorities receiving cases sent by magistrates, and the more severe state inebriate reformatories which receive the more criminal offenders or those for whom the lenity of certified reformatories has been found useless. The London County Council was the first municipal body to establish a certified reformatory. It purchased an estate in Surrey consisting of 374 acres with two mansions for $65,000. Some $35,000 were spent in adapting the estate and buildings for the accommodation of 30 female patients. The demand for accommodation grew rapidly, and in November a new building, adapted for 80 additional patients in six blocks, was erected at a cost of $115,000. Each patient has a separate bedroom, brightly furnished. A picturesque flower garden with lake and lawn adjoins the old mansion house. At the home farm, a quarter of a mile off, is a model dairy where the better-behaved are instructed in butter-making, baking, etc. Caring for poultry and bees, fruit-farming, potato picking, weeding and haymaking are among the outdoor duties of the women. Everything is done to take the patients back to the simple natural life of the English country homestead. A system of marks has been arranged whereby the women are enabled to earn something against their time of departure. There are punishment cells, spacious and light, resorted to only when moral suasion is exhausted.

The Health of London.

The report of Dr. S. F. Murphy, health officer to the county council for 1902, has just been issued. A most gratifying feature of the report is that, thanks to the untiring efforts of the Public Health Committee, London becomes more healthy year by year. The death rate for 1902 was only 17.2 per 1,000—the lowest on record except that for 1901, which was 17.1. The birth rate continues to steadily decrease, that for 1902 being 28.5—the lowest on record.

Correspondence.

The Duration of Life After Fatal Injuries.

San Francisco, Feb. 20, 1904.

To the Editor:—The question as to how long a patient may live after the reception of necessarily fatal injuries is just now the subject of judicial inquiry in the noted Fair case. In this particular trial the point at issue is whether Charles Fair or his wife lived the longer after receiving the severe injuries to the head that were disclosed by the autopsy. So far as gross lesions are concerned it would appear that Mrs. Fair's injuries were the more severe, the frontal bone being crushed and brain tissue lost. On this ground one of the medical witnesses very confidently asserted that Mrs. Fair must have died first. Apart from the fact that vital resistance is an unknown quantity in any given case, and that some individuals, such as those possessed of the so-called status lymphaticus, may instantly die as the result of the most inadequate causes, it is also apparent that quality and not quantity of tissue must be the determining factor in stopping the vital functions, a very small lesion in the neighborhood of the cardiac and respiratory centers being much more serious than a most extensive laceration of the frontal lobes. Rather curiously, lesions of the medulla and fractures of the base of the skull were not looked for in the case of Charles Fair. My object, however, in writing is to record a case that occurred in my practice some thirteen years ago, and to which I have often referred in private and to my class, but which I did not deem of sufficient importance until I read the medical opinion in the Fair case, with which this experience is entirely at variance.

A child, between one and two years of age, fell out of a baby carriage and rolled under the wheels of a heavily laden two-horse omnibus. The accident occurred in front of my house and the child immediately was brought in. The entire front of the head was crushed. The left temporal and frontal bones were torn from their anterior attachments, in a line running through the center of the orbit; in this way the vault of the skull was pried off the face, leaving an immense wound, through which at least a third of the brains had escaped into the roadway. As the child was carried into the hallway it uttered low cries, which, however, immediately ceased, but the breathing continued fairly regular for some time, as was the pulse. Final stoppage of the heart and respiration did not occur until twenty minutes after the receipt of the injury. I have always attributed this remarkable persistence of life to the probability that the basic ganglia were uninjured, and that notwithstanding the extent of the injury the loss of blood was not so great.

H. D'Arcy Power.

Significance of the Weight Wave of Menstruation.

Chicago, Feb. 24, 1904.

To the Editor:—As supplemental to my article on this subject in The Journal, June 13, 1903, allow me to report:

1. The increase in weight preceding the menstrual flow—which may exceed one pound per hour for several hours, the total increment being sometimes seven to nine pounds in 24 hours—is due to (*a*) increased absorption of oxygen, and (*b*) decreased excretion, notably of carbon dioxid and water. (Increased pressure of oxygen in the blood has been shown by Paul Bert, Hill and Macleod to retard metabolism and to decrease the excretion of CO_2 and water.)

2. The essential phenomena of the menstrual weight wave are therefore (1) the rapid absorption of oxygen with coincident retardation of metabolism and excretion, and consequent increase in weight; and (2) rapid excretion, especially of carbon dioxid (the exhalation of which may exceed two pounds in one hour) with consequent rapid decrease in weight.

3. Many observations, to be elaborated later, warrant the deduction that a cause of this metabolic cycle is an ovarian product; and that the menstrual discharge, white as well as red, proceeds from glandular activity of the uterus and is a feature of the general excretory activity of this period.

William T. Belfield, M.D.

Optional Medical Course in Liberal Arts School.

Chicago, Feb. 29, 1904.

To the Editor:—Knowing that The Journal is interested in anything that tends to best equip the physician for his profession, I wish, as an alumnus and member of the board of trustees of Wabash College—one of the oldest literary colleges in the middle west—to state through The Journal the following optional course of study which has recently been adopted by this institution for students who propose entering professional schools:

> A four years' course of study in which three years shall be prescribed work, all electives being reserved for the fourth year. Students taking this option will be permitted, if they so desire, to pursue their fourth year in attendance at a professional school approved by the trustees of the college; retaining in the meantime their college standing and responsibility and being eligible to graduation with their class on presentation of proper credits earned in this way.

Other options, of course, are given by the college in the way of allowing the elective work to be so arranged as to make the most advantageous connection with certain professional schools should the student desire to remain the full four years. The adoption of the foregoing optional course makes it of benefit to the student as well as to the college and, further, to the medical profession, should the student choose medicine as his profession. It so governs and directs the student as to guarantee for him the best education the profession offers. It gives the medical profession a more skilled and better prepared man, and the honor to the college will be reflected by the work accomplished in a professional way by this alumnus.

Geo. W. Hall.

Actinic Rays.

New York City, Feb. 22, 1904.

To the Editor:—Albert E. Sterne, A.M., M.D., has used some terms in his paper "Neurasthenia and Its Treatment by Actinic Rays" which I think should be corrected. This paper has been read before the American Medical Association and has been approved for publication by the Executive Committee of the Section. In medicine we are not bound to rely on authorities, and I for my *part do not* approve the title of that paper. 'Η ἀκτίς is the ray, actinic ray would then be rayish rays, but that is nonsense according to my understanding. I have not studied the paper *in* question thoroughly, but at a glance I notice on *page* 501 *some* remarks on one form of hysteria characterized by what the French termed "*Grandes movements.*" In Dr. Sterne's paper these two words are given with quotation marks and printed in italics, exactly as I give them here. There is no such word in the French language as movement or movements. Of course, Dr. Sterne means *mouvement*, but *this* is a masculine, the French term would therefore be "*Grands mouvements.*". I think it is very important to correct such mistakes, because they are transmitted by those who do not know better than the originator.

A. Rose.

Queries and Minor Notes.

Anonymous Communications will not be noticed. Queries for this column must be accompanied by the writer's name and address, but the *request* of the writer not to publish his name will be faithfully observed.

CHARGES FOR SERVICES TO PHYSICIANS AND THEIR FAMILIES.

Colorado Springs, Colo., Feb. 18, 1904.

To the Editor:—I write for information. What is the present status of the profession as regards rendering bills and accepting fees from physicians, and from their families, for services rendered? A recent personal experience pleads my excuse for enlightenment.

My eldest daughter, at present at school in New York City, developed some scalp affection. I advised her to consult a certain dermatologist, a man of some repute; a man with whom I was personally acquainted, whom I had entertained in my home, and a man to whom I have referred many New York friends. My daughter also induced a wealthy girl, one of her school friends, suffering from some skin trouble, to consult this man. January 1 I received a bill from this doctor for "Thirty dollars, less fifteen," the discount presumably owing to my being in the profession. I at once remitted the full amount, "Thirty dollars," and notified the doctor that he was very kind, but that I could not think of accepting his discount.

I have practiced here for the past thirty years, and during that time have attended hundreds of physicians and their families. I have always cheerfully responded, night or day, and have always felt it would be a personal insult if a physician requested a bill for services. From the above experience I have evidently been in the wrong. Your opinion and the opinion of the decent men in the profession would be valuable. B. P. Anderson, M.D.

Answer.—Our correspondent's custom of cheerfully rendering services to physicians and their immediate families without charge is the custom of the majority of physicians. Is it possible that the charge in this case was made by inadvertence or misunderstanding? The Principles of Ethics says:

"All practicing physicians and their immediate family dependents are entitled to the gratuitous services of any one or more of the physicians residing near them."

"When a physician is summoned from a distance to the bedside of a colleague in easy financial circumstances, a compensation, proportionate to traveling expenses and to the pecuniary loss entailed by absence from the accustomed field of professional labor, should be made by the patient or relatives."

DECISIONS UPHOLDING COMPULSORY VACCINATION LAWS.

Roanoke, Va., Feb. 15, 1904.

To the Editor:—For the benefit of those concerned in prosecuting persons for resisting compulsory vaccination, will you kindly give references in the standard law reports to decisions of the supreme courts in the various states where the constitutionality of compulsory vaccination and re-vaccination law was upheld? For instance, what is the reference in the law reports to the cases in Georgia and North Carolina mentioned in The Journal A. M. A., vol. xl, No. 22, p. 1533?

Frederic B. Webb, M.D.

Answer.—Morris vs. Columbus, 102 Ga. 792; State vs. Hay, 126 N. C. 999; Levin vs. City of Burlington (N.C.) 39 S. E. 822 or 55 L. R. A. 396.

LOSS OF TASTE AND SMELL FROM FORMALIN DISINFECTION.

Bakersfield, Cal., Feb. 24, 1904.

To the Editor:—During December I had several cases of scarlet fever, on which I had to call two and three times a day, and after each visit I went to my office and disinfected myself with formalin vapor. After the first week I noticed that I could stay in the room for a much longer time before it would seemingly irritate my nose or eyes. As a result, my sense of smell is entirely gone and everything I eat or drink tastes like formalin. I am unable to find, from the literature on formalin or from inquiry of my brother practitioners, what I can do to regain my sense of smell. If there is any article on this subject that you know of I wish you would cite it to me. If not, please put the question in The Journal and perhaps some one may have something to say through the columns of The Journal that will throw some light on this very annoying affliction. J. L. Carson, M.D.

Marriages.

Hugh Wilkinson, M.D., to Miss Ethel Sims, both of Kansas City, Kans., February 21.

Dudley Tait, M.D., San Francisco, to Miss Carrie Cozzens of San Jose, Cal., February 17.

Herbert B. Hanson, M.D., Hinesburgh, Vt., to Miss Myrtle S. Joy of Barre, Vt., February 16.

Joseph R. Hawley, M.D., Chicago, to Miss Daisy Miller of Muskegon, Mich., February 11.

William H. Tucker, M.D., Eldorado, Ohio, to Miss Grace W. Hill of Glen Karn, Ohio, February 21.

George H. Wollgast, M.D., to Miss Lucylle E. Hathaway, both of Coffeyville, Kans., Dec. 24, 1903.

Arthur E. Vinton, M.D., Muncie, Ind., to Miss Florence Lucille Nixon of Fountain City, Ind., February 16.

Earle Hoopes Ingham, M.D., to Miss Josephine R. B. Davis, both of Philadelphia, at Wilmington, Del., February 9.

William H. Raymenton, M.D., Worcester, Mass., to Miss Grace Lillian Carr of Pasadena, Cal., at Watertown, Mass., February 21.

Deaths.

Franklin Staples, M.D., died at his home in Winona, Minn., February 22, from locomotor ataxia after a lingering illness, aged 70. He studied medicine at Bowdoin Medical College and at the College of Physicians and Surgeons, New York, graduating from the latter in 1862. In the summer of this year he located in Winona. He was a charter member of the Minnesota State Medical Society, and at its third meeting was chosen president. He assisted at the organization of the Winona County Medical Society, and was its first secretary. He became a member of the American Medical Association in 1871, served as a member of the judicial council from 1875 to 1877, and was elected vice-president in 1877. In 1874 he was appointed a member of the Minnesota State Board of Health, and was elected president in 1879, and held this office until his death. From 1883 until 1887 he was professor of practical medicine in the medical department of the University of Minnesota when the faculty constituted the medical examining board of the state. Of late years Dr. Staples gave special attention to sanitation, his contributions in this field being numerous and eminently practical. He served as health officer of the city of Winona for many years, performing the arduous duties of that office in a manner not less creditable to himself than valuable to the community. Dr. Staples enjoyed the confidence and esteem of the medical profession throughout the Northwest, where he was widely known.

Gustav Liebmann, M.D. University of Tübingen, Germany, 1856, who practiced in Baltimore until 1881, and then moved to Boston, where he was a member of the school board, and from 1897 to 1900 professor of diseases of the digestive organs in the College of Physicians and Surgeons, died at his home in Brookline, Mass., February 20, aged 71.

John Dickenson, M.D. Cleveland Medical College, 1857, died at his home in Cleveland, February 19, aged 70. He served throughout the Civil War as surgeon, was health officer of Cleveland for several terms, and at one time surgeon of the police force.

John M. Minick, M.D. Cincinnati College of Medicine and Surgery, 1877, a member, and until January 1, president of the Kansas State Board of Health, died at his home in Wichita, February 22, after an illness of one week, aged 62.

Adolph Opperman, M.D. Germany, 1881, died at his home in Cordell, Okla., February 18, after a protracted illness, aged 61. He was the first physician to locate in Auburn, Neb., and was coroner of Nemaha County for several terms.

William B. Southard, M.D. University of Buffalo, 1859, at one time president of the Kalamazoo Academy of Medicine, died at his home in Kalamazoo, Mich., February 21, from paralysis, after an illness of eight days, aged 81.

Henry Rosenstock, M.D. Jefferson Medical College, Philadelphia, 1896, formerly of Philadelphia, who had been practicing for six weeks in Scranton, Pa., died at his home in Philadelphia, February 23, from Bright's disease.

Sebastian C. Dumm, M.D. Cleveland Medical College, 1872, Columbus, died at the Protestant Hospital, Columbus, February 19, from hemorrhage, a few hours after an operation for gallstones, aged 54.

William Alfred McCorn, M.D. University of Buffalo, 1882, formerly superintendent of the Elizabeth (N. J.) General Hospital, died suddenly at his home in Long Island City, N. Y., February 18.

James V. McLaughlin, M.D. College of Physicians and Surgeons, Baltimore, 1882, died at his home in Lisbon, Ohio, February 19, from consumption, after an illness of several months, aged 45.

August Krehbiel, M.D. University of Munich, Germany, 1878, a member of the consulting staff of the German Hospital, New York City, died at his home in New York City, February 11, aged 64.

Matthew Fletcher Haney, M.D. University of Buffalo, 1850, died at his home in Humberstone, Ont., Dec. 3, 1903, aged 79.

True M. Gould, M.D. Dartmouth Medical College, Hanover, N. H., 1855, for sixteen years postmaster of Raymond, N. H., died at his home in that place, February 15, aged 72.

August H. Trow, M.D. Castleton (Vt.) Medical College, 1862, in 1859, 1860 and 1872 a member of the Minnesota legislature, died recently at his home in Ethan, S. D., aged 81.

E. Graves Kittson, M.D. McGill University, Montreal, 1873; L.R.C.P. London, 1879, died at his home in Hamilton, Ont., February 4, after an illness of ten years, aged 52.

Thomas Nicholas Drake, M.D. University of Pennsylvania, Philadelphia, 1856, died at his home in Wilson, N. C., February 13, after a short illness, aged 74.

John Cooke, M.D. Cincinnati College of Medicine and Surgery, 1880, died at his home in Hastings, Neb., February 12, after an illness of eleven days, aged 58.

Evan W. Warfield, M.D. University of Maryland, Baltimore, 1845, died at his country place, Longwood, near Ellicott City, Md., February 17, aged 78.

Charles F. Alsentzer, M.D. University of Pennsylvania, Philadelphia, 1883, died at his home in Philadelphia, February 16, from heart disease, aged 38.

Peter Bryson Wood, M.D. Columbian University, Washington, D. C., 1883, died at his home in Baltimore, February 19, from pneumonia, aged 44.

Owen B. Canfield, M.D. Kentucky School of Medicine, Louisville, 1877, died at his home in Edgar, Neb., February 22, after a long illness, aged 48.

A. S. Martin, M.D. Lind University, Chicago, 1863, surgeon during the Civil War, died at his home in Cleveland, Ohio, February 15, aged 70.

H. William Burg, M.D. Jefferson Medical College, Philadelphia, 1877, of Northumberland, Pa., died at a hospital in Philadelphia, February 16.

Martin S. Leslie, M.D. Kentucky School of Medicine, Louisville, 1889, died suddenly at his home in Greenup, Ky., a few days ago.

Aimee R. Schroeder, M.D. Woman's Medical College of New York Infirmary, 1899, died in New York City, Dec. 25, 1903, aged 46.

Andre L. Cowles, M.D. University of Buffalo, 1892, died at his home in Spartansburg, Pa., February 18, from pneumonia, aged 60.

Joseph Atkins, M.D. Medical College of Ohio, Cincinnati, 1837, died at his home in West Lafayette, Ind., February 18, aged 92.

Stephen Eastman Root, M.D. University of Vermont, Burlington, 1875, died at his home in Rochester, N. H., February 12.

Carl H. Roese, M.D. Cooper Medical College, San Francisco, 1894, died at his home in San Francisco, December 12, aged 35.

Samuel D. Amerman, M.D., died at his home in Bartow, Fla., February 14, from heart disease, after a short illness, aged 57.

D. P. Rubush, M.D. Indiana, 1897, was found dead from heart disease at his home in Sharpsville, Ind., February 22, aged 56.

Whipple W. Clarke, M.D. Jefferson Medical College, Philadelphia, 1882, died at his home in Old Fort, N. C., February 15.

Albert A. Hanna, M.D. University of Maryland, Baltimore, 1875, died suddenly at his home in Baltimore, February 25.

Thomas Norton, M.D. McGill University, Montreal, 1874, died at his home in Shelburne, Ont., January 14, aged 52.

Green Moore, M.D. University of Louisville, 1874, died from paralysis at his home in McKinney, Ky., February 23.

Alvin R. Davis, M.D. Jefferson Medical College, Philadelphia, died at his home in Rawlins, Wyo., February 17.

D. M. Young, M.D. Ohio, died at his home in Painesville, Ohio, February 21, aged 85.

A. L. Ferrar, M.D., a pioneer of Petaluma, Cal., died January 15, aged 78.

Book Notices.

Social Diseases and Marriage. Social Prophylaxis. By Prince A. Morrow, A.M., M.D., Emeritus Professor of Genito-urinary Diseases in the University and Bellevue Hospital Medical College, New York. Cloth. Pp. 390. Price, $3.00 net. New York and Philadelphia: Lea Brothers & Co. 1904.

The work before us is timely. It deals with a subject which has to be handled delicately and yet thoroughly to be of use, and the author has certainly succeeded in meeting both these requirements. Every page of the text shows that it has been written by one who knows whereof he speaks. It is a pity that a book like this must be restricted to professional reading, but the physician who possesses it will find in it many points and hints that he can disseminate to his clientele to the very best advantage. A very interesting point discussed is that of the medical secret in regard to venereal disease. The author appears to us to take a judicial position, though he is evidently not too anxious to pronounce a decided opinion. In these days when there is so much agitation to have medical privilege established by law it is well to consider the situation in which the physician may find himself, and which is so well portrayed in this work. If it is the law for a physician to prevent a prospective crime the question of privilege in these cases is certainly not a dubious one. Of course, unnecessary publicity can be avoided and the absolute restrictions made at the present time by the French laws, and we believe also by one or two states of the Union, appears to us not only a moral wrong, but absolutely dangerous to society.

The Praxis of Urinary Analysis. A Guide to the Chemical Analysis of Urine. With Directions for Preparing Artificial Pathologic Urines for Practicing the Various Tests, and an Appendix on the Analysis of Stomach Contents. By Dr. Lassar-Cohn, Professor in the University of Koenigsberg. Authorized Translation from the Author's Enlarged and Revised Second Edition. By H. W. F. Lorenz, A.M., Ph.D. (Berlin), Late Instructor of Organic Chemistry in the University of Pennsylvania. First Thousand. Cloth. Pp. 58. Price, $1.00. New York: John Wiley & Sons. London: Chapman & Hall. 1903.

This little book, which seems to have a high standing in its own country, will be something of a surprise to many medical students and practitioners in the positiveness with which the author speaks of the uselessness of multiple tests and the advantages of a single one. Thus for albumin he gives only the heating test. For sugar, Trommer's test, etc. He does not include among the abnormal constituents of urine, uric acid and some other substances which are often considered necessary to be sought for either by qualitative or quantitative analyses. So far as it goes, however, the book is a reliable guide.

The Blues (Splanchnic [illegible]d Cure. By Albert Abrams, A.M., M.[illegible], Consulting Physician Denver National [illegible] Illustrated. Pp. 240. Price, $1.50. New York: E. B. Treat & Co. 1904.

The object of the author, he states in his preface, is to call attention to a new and heretofore underscribed variety of nerve exhaustion, which he designates as splanchnic neurasthenia, characterized by paroxysms of depression of varying duration, popularly called "the blues." Fortunately his experience with the condition has taught him that there is no variety of neurasthenia more amenable to treatment than this splanchnic form. The relation of emotional conditions to the abdominal viscera was recognized almost from the earliest antiquity. Depression of spirits and disease below the diaphragm have always been considered as associated, but Dr. Abrams has here brought out a scientific theory and statement of the condition.

Diseases of the Nose and Throat. By Charles Huntoon Knight, A.M., M.D., Professor of Laryngology, Cornell University Medical College. With 147 Illustrations. Cloth. Pp. 423. Price, $3.00 net. Philadelphia: P. Blakiston's Son & Co. 1903.

This work is based on a course of lectures at the Cornell University Medical College, and its arrangement is such as to make it suited for the use of students. Only the essentials of anatomy are described, the details, as the author says in his preface, can be found in more extensive and special works. The treatment of the different forms of disorder are clear and appear to us thoroughly satisfactory. The illustrations are numerous and instructive. The positions taken by the author in matters open to any question are judicious. As a whole the work is an admirable general summary of the subject of nose and throat diseases in a convenient compass and well suited for students' use.

Elements of Surgical Diagnosis. By A. Pearce Gould, M.S. Lond., F.R.C.S. Eng., Surgeon to the Middlesex Hospital. Third Edition. Revised and Enlarged. Cloth. Pp. 607. Price, $2.00 net. Chicago: W. T. Keener & Co. 1903.

This little work has been thoroughly revised and considerably rewritten for this edition. Certain sections have been added, such as those on the diagnosis of intracranial complications of middle ear disease and on the diagnosis of abdominal tumors. It also includes modern acquisitions in bacteriology, blood examinations, etc. We notice, however, a few omissions, for example, the surgery of typhoid fever; this is not a new subject, but appears to have been overlooked.

THE PRINCIPLES AND PRACTICE OF SURGERY. Designed for Students and Practitioners. By George Tully Vaughan, M.D. (Univ. of Va.), Assistant Surgeon-General U. S. Public Health and Marine-Hospital Service. Cloth. Pp. 568. Price, $3.50. Philadelphia and London: J. B. Lippincott Company. 1903.

In this volume of a little over five hundred pages practically the entire field of surgery is covered. That it could be covered in that space in only the most superficial manner goes without saying. The text is so condensed that it frequently amounts to little more than mere definitions. The student could obtain from the work a good general idea of what he was expected to study, but as a rule sufficient detail is lacking to guide the general practitioner in his work.

THE DECENNIAL PUBLICATIONS, University of Chicago. The Distribution of Blood-vessels in the Labyrinth of the Ear of Sus Scrofa Domesticus. By George W. Shambaugh, Instructor in the Anatomy of the Ear, Nose and Throat. Printed from Vol. X. Paper. Price, $1.25. Chicago: The University of Chicago Press. 1903.

This monograph is an elaborate description, beautifully illustrated, of the circulation in the labyrinth of the pig's ear. The author describes his methods and findings in detail and sums up the points of special interest. The work is an interesting and practical contribution to special anatomy and gives evidence of most painstaking and thorough investigation of its subject.

CLINICAL EXAMINATION OF THE URINE AND URINARY DIAGNOSIS. A Clinical Guide for the Use of Practitioners and Students of Medicine and Surgery. By J. Bergen Ogden, M.D., Formerly Instructor in Chemistry, Harvard University Medical School, Boston. Second Revised Edition. Illustrated, Including 11 Plates; 9 of Them in Colors. Cloth. Pp. 418. Price, $3.00 net. Philadelphia, New York, London: W. B. Saunders & Co. 1903.

This is a useful general treatise on urinary analysis. The author has made a few changes in regard to certain tests and taken up one or two subjects that were not noticed in the former work, such as cryoscopy. Otherwise the book, in the main, is the same as the former edition.

THE NUTRITION OF THE INFANT. By Ralph Vincent, M.D., Member of the Royal College of Physicians. Cloth. Pp. 295. Price, $3.50. New York: William Wood & Co. 1904.

Works on infant feeding are one of the necessities of the present day and are essential to every working physician's library. Dr. Vincent has prepared a treatise which, while it may not supersede other works like those of Judson and Gittings, nevertheless will be found useful as covering the same points in perhaps a somewhat different way. The author's dedication to Dr. Thomas Morgan Rotch shows how much he recognizes what is due to American work in this line.

A TEXT-BOOK OF MODERN MATERIA MEDICA AND THERAPEUTICS. By A. A. Stevens, A.M., M.D., Lecturer on Physical Diagnosis in the University of Pennsylvania. Third Edition. Greatly Enlarged, Rewritten and Reset. Cloth. Pp. 663. Price, $3.50 net. Philadelphia: W. B. Saunders & Co. 1903.

In this edition Stevens has rearranged the classification and rewritten the work to bring it up to the modern advances of the subject.

Miscellany.

Medicine for the Physician.—"Wholesome exercise, in the free air, under the wide sky, is the best medicine for body and spirit." This truism is again recommended for the hospital interne and the city physician whose practice is largely limited to office consultations.

A Dirty Office.—The *Medical Recorder* (Shreveport, La.) urges physicians to set an example for cleanliness and have neat offices. It says: "The average physician's office, especially in the country villages, usually looks as though it had not had a good cleaning for months."

Rubber and Linen Gloves.—A German journal recommends the use of linen gloves drawn over rubber gloves during an operation. The instruments do not slip as easily on the linen and do not puncture it, while the rubber beneath prevents the escape of germs from the skin. Is this a good suggestion or is this carrying the matter of gloves too far? Is not the surgeon's skilled sense of touch one of his most valuable accomplishments? If not, a modified form of boxing gloves would absorb the germs from the skin and prevent infection.

Exhibit of Medical Journals at the St. Louis Fair.—The editorial fraternity will be much interested in the proposed exhibit of medical journalism at the St. Louis Exposition this summer. Several of our contemporaries have commented on this matter, expressing the value of such an exhibit. In a special department all the medical publications of the State of Missouri are to be exhibited. Space has been allotted in the Palace of Liberal Arts, and Dr. Charles Wood Fassett of St Joseph, Mo., is in charge of the exhibit. There will be much instruction in an examination of this exhibit.

The Contagiousness of Scarlet Fever.—An interesting item is going the rounds of the medical press, in which comment is made on an article which was abstracted in THE JOURNAL two years ago. Aaser of Christiania, finding many cases of scarlet fever infection from nose and throat secretions after desquamation had entirely ceased, urged that this source of infection be more carefully guarded against. It is well to give general publicity to this caution and to ask for further observations, but in these two years doubtless Aaser can add some facts to those given at the time of his original publication.

A Medical Professor of Anatomy in Art.—Dr. P. Richer of Paris is an accomplished sculptor, whose works have won him many medals. His literary articles on anatomy and pathology in art and on various art questions have been doubly crowned with prizes, one from medical and the other from art societies. Last year he was appointed professor of anatomy at the school of fine arts, the famous "Beaux-Arts," and his methods of teaching are effecting a revolution in the routine of art instruction. He has the students draw first the bones, then the muscles, separately, and then he has them draw them in place from the live model. The students thus learn anatomy with their crayon in hand, as the medical student learns it with the knife.

Pithy Papers.—The editor has attended several meetings for the organization of county societies, and has been struck by one thing more particularly than any other—the desire of the physicians to get together to form such societies, to omit the long, tiresome papers compiled from text books or journals, and to confine the work of the society meetings to short, pithy papers or reports that deal with practical questions and actual experiences. That is just what we all really need. Some men seem to have the diabolic faculty of putting together a mass of stuff making a paper of great length, which is painful even for the printer to read, when everything that they had to say could have been said in one-tenth of the space.—*California State Journal of Medicine.*

Physical Development of Mexican Children.—R. Carrillo publishes in the *Revista Medica*, XIV, Nos. 12 to 18, the results of examination of several hundred children among the lower classes of the city of Mexico. He found only a single instance of rachitis among 500 examined. The size and weight of the children, from birth to the sixth year, is less than the corresponding figures for the European child. The teeth do not develop so early; dentition extending over thirty-six months in extreme cases, the average being thirty months, while in Europe the average is eighteen months, with twenty-four as the extreme. Co-ordinated movements commence at about the same age in both Mexican and European children, apparently not influenced by the backward development of the former. He gives detailed tables of the various groups of children examined.

Medical Societies to Cross-Examine So-called Experts.—Would the expert evidence in the trials be just what it is if the medical societies were in the habit of calling their members to the bar of an expert public opinion and demanding that they state, fully state, all the evidence, facts and symptoms, which they found, and the reasoning by which they reached the conclusion which they have embodied in their testimony as experts? Imagine the state of mind of two practitioners who have testified on the opposite sides of some damage suit if they were obliged to file with the court a statement of the symptoms and objective evidence on which they based their opinions, and if after the trial and verdict this were sent to the medical examining board of the state, and then the experts were called on to explain. If this thing were to happen about twice, would not a change wonderful to contemplate come over the "expert medical testimony" given in such damage suits?—*Medical Examiner and Practitioner.*

Professional Charges—The Patient's Ability to Pay.—It is often difficult for the physician to make his charges equitable on the basis of the financial condition of the patient. Dr. Ernest A. Hall, Vancouver, B. C., suggests to the *Dominion Medical Monthly* a table as a guide for fees. He intends this schedule to apply only to patients in moderate circumstances, and when the income reaches $200 per month he recommends that the amount of the fee be left wholly to the discretion of the physician, but the table could be extended to include all amounts. In the first column the figures represent in dollars the income of the family or of the patient. At the top of the other columns the numbers, 1, 2, 3, etc., indicate the number of persons dependent on the income, and the figures in the columns below are percentages. These percentages indicate what proportion of the usual fee should be charged. For example, if $100 would be the regular charge for a certain series of visits or for a certain operation for which a man with a salary of $120 per month is to pay, he having a wife and five children, opposite the monthly income of $120, in the column under 7 (man, wife and five children made a total of 7 dependent on the income) is found the percentage of 60. Taking 60 per cent. of $100 gives $60 to be charged. Thus the table establishes a ratio between the income and the number dependent thereon, or, in other words, the assets of the family are divided by the liabilities, and thus is derived that most important fact—the ability to pay. The table may be subject to a number of criticisms, but we reproduce it herewith for whatever suggestiveness or value it may have for our readers.

Monthly Income.	Number Dependent on Income.								
	1	2	3	4	5	6	7	8	9
$150.	100%	100%	100%	100%	100%	100%	90%	80%	70%
140.	100	100	100	100	100	90	80	70	60
130.	100	100	100	100	90	80	70	60	50
120.	100	100	100	90	80	70	60	50	40
110.	100	100	90	80	70	60	50	40	30
100.	100	90	80	70	60	50	40	30	20
90.	90	80	70	60	50	40	30	20	10
80.	80	70	60	50	40	30	20	10	
70.	70	60	50	40	30	20	10		
60.	60	50	40	30	20	10			
50.	50	40	30	20	10				
40.	40	30	20	10					
30.	30	20	10						
20.	20	10							
10.	10								

Lay Opinions on Malpractice.—In the malpractice suit against Dr. Burrows of Marshalltown, says the *Iowa Medical Journal*, Judge Burnham, in taking the case away from the jury, had the following to say: "I think the plaintiff and her husband should rise up and bless this man for having saved the life of the plaintiff in this case. The evidence here clearly shows this defendant has exercised the greatest care and the greatest caution, and has brought to bear skill at least equal to what is required of physicians of the community in which he practices. I can not sit here and say this defendant has been guilty of conspiracy with his brother physicians to protect himself against a claim made in this case. I do not believe it." The editor of the city paper in commenting on the verdict makes some pertinent remarks that are worth preserving, thus: "As a general rule damage cases against reputable physicians and surgeons for malpractice will fail to materialize evidence whenever they appear in court, and the action of Judge Burnham this week will be approved by the public generally. The profession of surgery is a life-saving business. It would be a calamity if the surgeons should quit operating, and it follows that if a surgeon or physician is known to be practicing his profession with success in a majority of cases, he should not be mulcted for damages, even though an operation should fail or a patient be dissatisfied. He does not guarantee success and should not be held for anything except incompetence or criminal neglect. Anything else would be asking a practitioner to assume risks far in excess of the premiums to be derived from his business, and the public welfare would not be favored by a raise in doctors' rates to insure such risks. However, the provisions of the law are very necessary for the protection of the public from the criminal incompetency of the quack, hence it remains largely with the good judgment of the court to see that justice is done, a duty that Judge Burnham seems to have discharged with ability."

State Boards of Registration.

COMING EXAMINATIONS.

Board of Registration in Medicine for Massachusetts, State House, Boston, March 8-9. Secretary, Edwin B. Harvey, M.D., State House, Boston.

Committees of Examination of Connecticut, New Haven, Hartford and Waterbury, March 8. Secretary, Prof. C. A. Lindsly, New Haven.

Maine Board of Registration of Medicine, Portland, March 23. Secretary, A. K. P. Meserve, M.D., Portland.

Regular Board of Medical Examiners for Georgia, Atlanta, March 30. Secretary, I. H. Goss, M.D., Athens.

State Board of Examiners of Alabama, Montgomery, 1st to 10th of each month. Chairman, W. H. Sanders, M.D., Montgomery.

Arizona Board of Medical Examiners, Phoenix, April 4. Secretary, Wm. Duffield, M.D., Phoenix.

Utah State Board of Medical Examiners, Salt Lake City, April 4. Secretary, R. W. Fisher, M.D., Salt Lake City.

Board of Medical Examiners of Montana, Helena, April 5. Secretary, Wm. C. Riddell, M.D., Helena.

North Dakota State Board of Medical Examiners, Grand Forks, April 5. Secretary, H. M. Wheeler, M.D., Grand Forks.

Board of Medical Examiners of the State of California, City Hall, San Francisco, April 5. Secretary, Geo. G. Gere, San Francisco.

Idaho State Board of Medical Examiners, Boise, April 6. Secretary, R. L. Nourse, M.D., Hailey.

Minnesota State Board of Medical Examiners, State Capitol Building, St. Paul, April 5-7. Secretary, C. J. Ringnell, M.D., Minneapolis.

Rhode Island State Board of Health, State House, Providence, April 7-8. Secretary, Gardner T. Swarts, M.D., Providence.

State Medical Board of the Arkansas Medical Society, Little Rock, April 12. Secretary, J. P. Runyan, M.D., Little Rock.

Missouri State Board of Health, Kansas City, April 12-14. Secretary, W. F. Morrow, M.D., Kansas City.

West Virginia State Board of Health, Clarksburg, April 12-14. Secretary, Hugh A. Barbee, M.D., Point Pleasant.

Vermont State Board of Medical Censors, Y. M. C. A. Building, Rutland, April 13-14. Secretary, S. W. Hammond, M.D., Rutland.

Board of Medical Supervisors of the District of Columbia, Washington, April 14. Secretary, Wm. C. Woodward, M.D.

Board of Medical Examiners for the State of Texas, Austin, April 21-23. Secretary, M. M. Smith, M.D., Austin.

No Reciprocity Between New York and Pennsylvania.—The Medical Council of Pennsylvania, at its session in Harrisburg, Feb. 13, 1904, took the following action:

> Whereas, On careful examination, we find that the standard of acquirements of the medical examination of the State of New York is not substantially the same as that of the medical examination of the State of Pennsylvania; therefore, be it
>
> *Resolved*, 1. That on account of the disparity existing as to the acquirements in the states of New York and Pennsylvania, New York licenses shall not be accepted as the authority for granting Pennsylvania licenses under the provision of the act approved May 18, 1893.
>
> *Resolved*, 2. That a copy of this action be sent to The Journal of the American Medical Association and to the dean of each medical college in the State of Pennsylvania.

California Report.—Dr. George G. Gere, secretary of the Board of Medical Examiners of the State of California, reports that 90 questions were asked on 9 subjects in the written examination given at San Francisco, Dec. 1-3, 1903, and that out of 68 applicants, 46 passed, 5 were conditioned and 17 failed entirely. The percentage required was 75. The questions are given below. The colleges named below were represented by applicants who were graduates in the years stated, and who received the grades stated. There was also a licentiate of the Illinois State Board of Health of the year 1898, who received a grade of 83.2.

PASSED.

Colleges.	Years of Graduation and Grades
University of California,	(1900) 84.1, (1902) 86.1, (1903) 76.7, 83.4, 83.1.
College of P. and S., San Francisco,	(1903) 89.8, (1902) 78.8.
Cooper Med. Coll., San Francisco,	(1903) 78.5, 75.4, 83.5, 78.3, 77.3.
Hahnemann Med. Coll., California,	(1903) 82.3, 80.7, 81.5, 77.6, 81.7, 77.2.
Northwestern Univ., Chicago,	(1902) 82.3, (1903) 83.4, 80.1.
Coll. of P. and S., Chicago,	(1903) 83.8, (1901) 77.1.
University of Pennsylvania,	(1889) 80.3, (1893) 91.3, (1900) 84.8.
University of Michigan,	(1901) 83.4, (1894) 82.5.
Harvard University,	(1902) 82.6, (1891) 84.7.
University of Iowa,	(1883) 75.4, (1896) 77.1.
Detroit College of Medicine,	(1876) 75, (1902) 78.1.
University of Minnesota	(1903) 75.5
University of Southern California	(1903) 78.4
Amer. Med. Miss. Coll., Chicago	(1903) 77.1
Royal College, Surgeons, England	(1895) 85.3
McGill University	(1899) 80.6
Jefferson Medical College	(1901) 81.1
Medical College of Ohio	(1880) 85.2
Johns Hopkins University	(1902) 78.5
Bellevue Hospital Medical College	(1869) 75.7
Albany Medical College	(1887) 81.5

FAILED.

American Medical Missionary College	(1902)	70.2
Long Island Hosp. Med. Coll., New York	(1899)	64.0
University of South Tennessee	(1901)	73.4
University of Denmark, Copenhagen	(1894)	66.7
Coll. of P. and S., Chicago	(1895) 68, (1901)	68.7
Cooper Med. Coll., California	(1903)	72.3, 74.2
Detroit College of Medicine	(1896)	74.5
Meharry Medical College, Tennessee	(1893)	56.8
Hahnemann Medical College, California	(1903)	73.5
Faculty of Paris, France	(1891)	69.8
Rush Medical College, Chicago	(1890)	63.7
Missouri Medical College	(1889)	67.6
University of Vermont	(1890)	69.1
Omaha Medical College	(1899)	68.4
Coll. of P. and S., California	(1902)	59.5

CONDITIONED IN PATHOLOGY.

University of Michigan	(1903)	77.7
Coll. of P. and S., Baltimore	(1901)	75.8
Cleveland Hosp. Coll., Ohio	(1886)	79.7
Hahnemann Med. Coll., California	(1903)	75.4
American Medical College, Missouri	(1897)	75.0

PRACTICE OF MEDICINE.

(The three sets are the regular, homeopathic and eclectic, and the applicant may answer one set.)

1. Symptoms and treatment of typhoid fever. 2. What is the difference between intermittent and remittent fever? 3. Symptoms and treatment of scarlet fever. 4. Symptoms and treatment of measles. 5. Symptoms and treatment of erysipelas. 6. Diagnosis and treatment of variola. 7. Causes and diagnosis of gastric ulcer. 8. Treatment of tapeworm. 9. Diagnosis and treatment of acute Bright's disease. 10. Causes and treatment of cystitis.

1. Diagnose and treat a case of scarlet fever, giving indications for each drug. 2. What is lumbago? Suggest treatment. 3. Differentiate a pneumonia from pulmonary congestion. 4. Give treatment of erysipelas of face. 5. Give three causes of constipation, and give treatment for each. 6. What is chorea? Give your method of treatment. 7. Describe a case of gastric ulcer. 8. How would you treat a case of cystitis? 9. Patient restless, high temperature following defined chill, skin dry, severe muscular aching, coryza, headache. Give diagnosis and treatment. 10. Give symptoms and treatment of spasmodic croup.

1. What are the lesions commonly found, or that may occur in the natural (clinical) history of diabetes mellitus? Give the treatment of diabetes mellitus. 2. *Give the etiology of biliary calculi.* Describe the symptoms and the treatment of obstruction of the ductus communis. 3. Give a motor, a sensory and an optical symptom of tabes dorsalis. Locate the essential lesion. 4. Describe the symptoms of any one disease of the pancreas. 5. Enumerate and describe the common types of malarial intermittent fever. Give the etiology and the treatment. 6. Give the differential diagnosis of intussusception of small intestine and acute appendicitis. 7. Give the physical signs of moderate effusion in the left pleural cavity. 8. What are the more *frequent causes of* endocarditis? Describe the physical signs of a mitral insufficiency. 9. Give the physical signs and describe the symptoms that would lead to the diagnosis of tuberculosis of the lungs at an early stage (the period of invasion). 10. Describe the blood changes in anemia (secondary) and pernicious anemia (primary).

CHEMISTRY AND TOXICOLOGY.

(Answer any 10 and only 10.)

1. Describe a method of preparing oxygen. 2. Define the terms distillation, sublimation; give examples of each. 3. Mention five elementary substances commonly used in medicine in an uncombined state. 4. State two laws governing chemical combinations. 5. Explain the nomenclature *of binary* compounds. 6. Describe a galvanic cell; explain the chemical changes occurring during action. 7. What is a compound radical? Give two examples. 8. Give the chemical names for (1) tartar emetic, (2) cream of tartar, (3) Glauber's salts, (4) copperas, (5) sugar of lead. 9. What is chloroform? How is it made? 10. What is glycerin? How is it classified chemically? 11. Give two tests for morphin. 12. What is the antidote for arsenic poisoning? Why? 13. What the antidote for poisoning by lead acetate? Why? 14. Describe in detail a test for sugar in urine. 15. What is the normal reaction of fresh urine? Explain the effect of decomposition on this reaction.

MATERIA MEDICA (HOMEOPATHIC).

1. What symptoms determine choice of aconite in any form of acute disease? 2. Differentiate the cough symptoms of *belladonna*, sticta and ipecac. 3. Give an outline of the action of opium. 4. Differentiate apis and rhus in the treatment of erysipelas. 5. Give three characteristic symptoms of lachesis and what is the character of its hemorrhage? 6. Give the indication for bryonia, *and colchicum* in rheumatism. 7. Give the action of ergot on the spinal cord. 8. Differentiate iris, glonoin and gelsemium in headache. 9. Give guiding symptoms of sepia and helonias in female diseases. 10. Give the bowel symptoms of merc. corr.

PATHOLOGY.

1. Discuss immunity, giving special attention to acquired immunity, to toxin immunity, and to the theories of the nature of immunity. 2. Under what conditions *occur a physiologic* leukocytosis? Under what pathologic conditions would you expect to find a polymorphonuclear leukocytosis? A lymphocytosis? 3. Name three processes marked by retrogressive changes in tissues. Three marked by progressive changes. 4. Illustrate by a drawing the *microscopic* structure of an adenoma, an adenocarcinoma and a lymphosarcoma. 5. What is the significance of hyaline casts in urine? Of granular casts? 6. Name two sequelæ of asthma and tell how they are brought about. 7. Give the pathology of embolus. Of thrombus. 8. What *macroscopic pathologic conditions* would you expect to be able to demonstrate in a subject where death was due to parenchymatous nephritis and its complications? 9. Examination of pathologic specimens. 10. Examination of *x*-ray plates.

MATERIA MEDICA AND THERAPEUTICS.

1. Name five drugs which by their action on the vasomotor centers dilate peripheral blood vessels. Five that contract. 2. Explain the action of counterirritants, and give three that are *safe to apply* over large areas. 3. Give source, preparations with doses and therapeutics of salicylic acid. 4. Give action and therapeutics of diphtheria antitoxin. What conditions would cause you to increase or diminish the quantity given in the course of treatment? 5. What is the *physiologic action of arsenic, given in small* doses three times a day? Given in full medical doses three times a day? What per cent of Fowler's solution is arsenious acid? 6. Compare the physiologic action of tannic acid with gallic acid. 7. Give two formulæ for preparing nutriment for rectal feeding. 8. Write a prescription containing two drugs beside the vehicle, for acute bronchitis, marked by a dry harassing cough. Use no abbreviations. 9. Give the physiologic action of amyl nitris, and name three drugs that are largely antagonistic to this action. 10. *What would you consider a safe initial adult dose of* sulphate of strychnia, sulphate of morphia, chloral hydrate, sulphate of hyoscyamin and the hydrochlorate of pilocarpin?

MATERIA MEDICA (ECLECTIC).

1. Name three heart tonics. 2. What are the medical properties of ammonium carbonate. 3. What are tinctures, infusions and decoctions. 4. What is meant by the term hydragogue? 5. Give the therapeutic properties of podophyllin. 6. In prescribing iron what *form do you prefer, and why?* 7. What *precautions are necessary* in prescribing strychnia, opium and lobelia? 8. Define narcotics, laxatives, antispasmodics, giving example of each. Give specific indications for gelsemium, belladonna, apis. 10. Give medical properties of digitalis with principal organs influenced.

SURGERY.

1. Describe the lymphatic involvement in an advanced case of carcinoma of the stomach, and state the significance of such from the standpoint *of operative treatment.* 2. *Describe in detail* the technic of saline intravenous injections. 3. Describe and give treatment of glaucoma. 4. Differential diagnosis and treatment of varicocele. 5. Describe *in detail* the methods of service in combating complications occurring during chloroform anesthesia. What is Laborde's method of producing artificial respiration? 6. Name varieties and give treatment of goiter. 7. Describe in detail Schleich's method of local anesthesia. 8. Define the following terms: Enteroplosis, pyelophlebitis, cholecystogastroenterostomy, ment of glaucoma. 4. *Differential* diagnosis and treatment of foreign bodies of the bladder in the male and female. 10. Differential diagnosis and treatment of cancer of the rectum.

OBSTETRICS.

1. What is vicarious menstruation? What is the menopause, and what symptoms herald its approach? 2. Define extrauterine pregnancy. Give the symptoms, differential diagnosis, classification and management of the same. 3. Give the natural causes, symptoms and the management *of a case of abortion* during the early months of pregnancy. 4. What is "quickening," and at what period of pregnancy is it usually noticed? Describe fetal heart sounds, their rate, when and where are they best heard? 5. What are the causes of rupture of the uterus in labor? Give the signs, symptoms, prognosis and management of both mother and child. 6. What is version? Give the varieties, application and technic of each. 7. Give the stages of labor and describe what takes place during each stage. 8. What is the best method of delivering the placenta? 9. What are the *principal congenital defects* of the new-born child. 10. What is phlegmasia alba dolens? Give symptoms, treatment and results.

BACTERIOLOGY.

1. Describe *the bacteriologic methods of service* in the clinical diagnosis of typhoid fever. 2. With what micro-organisms may Koch's bacillus be confounded? 3. Describe the bacteriologic diagnosis of diphtheria, and state the action of the diphtheria bacillus. 4. *Define the following terms:* Hemolysis, chemiotaxis, obligatory aerobes and facultative anaerobes. 5. Describe Metchnikoff's theory of immunity, and state its value as an explanation of the facts of immunity. 6. Name three chromogenic bacteria. 7. Describe briefly the principles of the Pasteur treatment of rabies. 8. Describe *method of examining pus.* 9. Examination of cultures. 10. Examination of smears.

ANATOMY.

(Answer any 10 questions, but no more.)

1. What is the foramen *magnum, and what does it transmit?* 2. Describe the mastoid portion of the temporal bone, giving its surgical importance. 3. Give number and name of the various regions of the skull. 4. Bound the pelvic cavity and name the contents. 5. How is collateral circulation established after ligation of the common carotid? 6. In what do the pulmonary veins differ from others? 7. What composes the portal system of veins?

8. Name the divisions of the brain. 9. Give the gross anatomy of the liver. 10. Describe the hip joint and name the ligaments. 11. Describe the pericardium as a structure, and give the blood and nerve supply. 12. What is the pleura? Give its reflections. 13. Name the biliary ducts and briefly describe each. 14. What is the pharynx, and what openings communicate with it? 15. What is the popliteal space, and what does it contain?

PHYSIOLOGY.

1. What are the causes of the first and second sounds of the heart? 2. Describe the difference in function of the afferent and efferent nerves. 3. Define the digestive process. 4. What is meant by tidal, complemental, reserve and residual air? 5. How do the products of digestion find their way into the venous blood? 6. What is the origin and use of glycogen? 7. What is the function of the ninth cranial nerve? 8. What are the functions of the skin? 9. What is the function of the optic thalami? 10. Where is the location of the center for articulate speech.

The Public Service.

Army Changes.

Memorandum of changes of stations and duties of medical officers, U. S. Army, for the week ending Feb. 27, 1904:

Girard, Alfred C., asst.-surgeon general, assigned to duty as chief surgeon, Department of California.

Torney, Geo. H., deputy surgeon general, relieved from temporary duty as chief surgeon, Department of California, and assigned to duty in command of U. S. Army General Hospital, Presidio of San Francisco.

Kendall, Wm. P., surgeon, relieved from duty at U. S. Army General Hospital, *Presidio of San Francisco*, and ordered to Ord Barracks, Cal., for duty.

Waterhouse, Samuel M., asst.-surgeon, relieved from duty on the transport *Logan* and from further duty in the Philippine Division, and ordered to Fort Worden, Wash., for duty.

Patton, Irvine W., asst.-surgeon, relieved from further duty at Fort Hamilton, N. Y., and is assigned to duty as surgeon on transport *McClellan*.

Waterhouse, Samuel M., asst.-surgeon, granted two months' leave of absence.

Vaughan, Milton, contract surgeon, arrived on the *Logan*, at San Francisco, February 12, for treatment.

Wells, Francis M., contract surgeon, arrived on the *Logan* at San Francisco February 12, on two months' leave of absence from the Division of the Philippines. This leave he availed himself of February 25, after accompanying troops to Columbus Barracks, Ohio.

Wythe, Stephen, contract surgeon, relieved from duty February 18, at the Presidio of San Francisco, and assigned to duty as transport surgeon of the *Buford*.

Foster, Douglas E., contract dental surgeon, left Madison Barracks, N. Y., February 24 for his proper station, Fort Hancock, N. J.

Chambers, Wm. H., contract dental surgeon, arrived February 19, at Atlanta, Ga., for duty in the Department of the Gulf.

Hughes, Leonard S., contract surgeon, on leave of absence from the Division of the Philippines; extension of one month granted.

Jordan, Edward H., contract surgeon, on leave of absence from the Division of the Philippines; extension of one month granted.

Navy Changes.

No changes in the medical corps of the Navy for week ending Feb. 27, 1904.

Marine-Hospital Service.

Official list of the changes of station and duties of commissioned and non-commissioned officers of the Public Health and Marine-Hospital Service, for the seven days ended Feb. 25, 1904:

Stoner, G. W., surgeon, four days' leave of absence from Feb. 24, 1904, under Paragraph 189 of the Regulations.

Anderson, J. F., P. A. surgeon, granted leave of absence for two days from February 18, on account of sickness.

Stansfield, H. A., and McClintic, T. B., asst.-surgeons, to report to chairman of examining board at Washington, D. C., March 9, 1904, for examination to determine their fitness for promotion to the grade of P. A. surgeon.

Berry, T. D., assistant surgeon, directed to *rejoin station* at Louisville, Ky., on the return of Surgeon G. M. Guiteras.

Herty, F. J., pharmacist, granted leave of absence for four days from Feb. 14, 1904, under Paragraph 191 of the Regulations.

PROMOTIONS.

Geddings, H. D., P. A. surgeon, commissioned as surgeon, to rank as such from Nov. 23, 1903.

Wertenbaker, C. P., P. A. surgeon, commissioned as surgeon Feb. 16, 1904.

Health Reports.

The following cases of smallpox, yellow fever, cholera and plague have been reported to the Surgeon General, Public Health and Marine Hospital-Service, during the week ended Feb. 26, 1904:

SMALLPOX—UNITED STATES.

California: San Francisco, Feb. 7-14, 5 cases.
District of Columbia: Washington, Feb. 13-20, 6 cases.
Florida: Jacksonville, Feb. 13-20, 5 cases.
Georgia: Liberty County, Feb. 12, 7 deaths.
Illinois: Danville, Feb. 13-20, 3 cases.
Louisiana: New Orleans, Feb. 13-20, 1 case imported.
Maine: Calais, Feb. 18, 5 cases.
Maryland: Baltimore, Feb. 13-20, 1 case.
Michigan: Detroit, Feb. 13-20, 2 cases, 1 death.
Missouri: St. Louis, Feb. 13-20, 5 cases.
New Hampshire: Manchester, Feb. 13-20, 1 case.
New Jersey: Trenton, Feb. 13-20, 7 cases.
New York: Feb. 13-20, New York, 3 cases, 1 death; Niagara Falls, 5 cases.
Ohio: Cleveland, Feb. 12-19, 1 case.
Pennsylvania, Feb. 6-13, Butler, 1 case; Williamsport, 1 case; Carbondale, Feb. 14-21, 1 case; Feb. 13-20, Johnstown, 4 cases; Philadelphia, 49 cases, 13 deaths; Pittsburg, 2 cases, 1 death; *Titusville, 1 case.*
Tennessee: Feb. 13-20, Memphis, 31 cases; Nashville, 7 cases.
Utah: Salt Lake City, Feb. 6-13, 1 case.
Virginia: Danville, Feb. 6-13, 2 cases.
Wisconsin: Milwaukee, Feb. 13-20, 11 cases.

SMALLPOX—INSULAR.

Hawaii: Honolulu, Feb. 4, 1 case on U. S. T. *Logan*.

SMALLPOX—FOREIGN.

Austria: Prague, Jan. 23-30, 3 cases.
Brazil: Pernambuco, Jan. 1-15, 39 deaths; Rio de Janeiro, Jan. 17-24, 24 cases, 27 deaths.
Canada: Quebec, Feb. 6-13, 1 case; Tower Hill, N. B., Feb. 15, 2 cases.
Colombia: Barranquilla, Jan. 27-Feb. 2, 5 deaths.
France: Marseilles, Jan. 1-31, 29 deaths; Paris, Jan. 30-Feb. 6, 31 cases, 2 deaths.
Great Britain: Jan. 30-Feb. 6, Edinburgh, 17 cases, 1 death; Hull, 3 cases; Manchester, 3 cases; Newcastle-on-Tyne, 2 cases, 1 death; Nottingham, 11 cases; South Shields, 1 case; Sunderland, 1 case; Glasgow, Feb. 5-12, 46 cases, 2 deaths; London, Jan. 23-30, 4 cases; Sheffield, Jan. 23-Feb. 6, 3 cases.
India: Bombay, Jan. 19-26, 7 deaths; Karachi, Jan. 17-24, 2 cases, 1 death.
Mexico: City of Mexico, Jan. 31-Feb. 7, 4 cases, 3 deaths.
Netherlands: Amsterdam, Jan. 30-Feb. 6, 3 cases.
Russia: Moscow, Jan. 16-23, 5 cases, 4 deaths; St. Petersburg, Jan. 23-30, 11 cases, 8 deaths.
Spain: Santander, Feb. 1-8, 5 cases.
Turkey: Smyrna, Jan. 17-31, 5 deaths.

YELLOW FEVER.

Brazil: Rio de Janeiro, Jan. 17-24, 3 cases, 1 death.
Cuba: On Nor. bk. Eugen from LaGuaira, Mez., wrecked on South coast Feb. 16, 7 cases, 5 deaths.
Mexico: Jan. 31-Feb. 13, Merida, 1 case, 4 deaths; Progreso, 1 case; Vera Cruz, Feb. 6-13, 1 case, 1 death.

CHOLERA—INSULAR.

Philippine Islands: Manila, Jan. 2-9, 4 cases, 4 deaths.

CHOLERA—FOREIGN.

India: Calcutta, Jan. 8-23, 38 deaths.
Turkey in Asia: Diarbekir, Jan. 9, 1 death; Kerbela, Jan. 11-12, 5 cases, 5 deaths.

PLAGUE—UNITED STATES.

California: San Francisco, Feb. 12-14, 2 deaths.

PLAGUE—FOREIGN.

Brazil: Pernambuco, Jan. 1-15, 1 *death*; Rio de Janeiro, Jan. 17-24, 8 cases, 6 deaths.
India: Bombay, Jan. 19-26, 231 deaths; Calcutta, Jan. 8-23, 23 deaths; Karachi, Jan. 17-24, 8 cases, 7 deaths; Madras, Jan. 16-22, 1 death.
Peru: San Pedro, Feb. 20, *a* few cases.
Russia: Cronstadt, Jan. 20, 1 death, laboratory case.

Medical Organization.

Iowa.

Lucas County Medical Society.—Physicians of the county met at Chariton, February 13, and with the aid of Dr. David C. Brockman, Ottumwa, councilor for the Sixth District, organized a county society on the standard plan, adopted the constitution and by-laws recommended by the state society, and elected the following officers: President, Dr. Albert L. Yocum, Chariton; vice-president, Dr. David Q. Storie, Jr., Chariton; secretary-treasurer, Dr. John H. Stanton, Chariton; delegate to state society, Dr. Herbert H. Nelson, Russell, and committee on public health and legislation, Drs. John H. Stanton, Edgar L. Field and David Q. Storie, Jr., all of Chariton.

Kentucky.

Seventh Councilor District.—Dr. James G. Carpenter, Stamford, councilor for this district, reports that he has organized eleven of the twelve counties which constitute his district.

North Dakota.

Sixth Judicial District Medical Society.—The physicians of this district have organized with the following officers: President, Dr. Francis R. Smyth, Bismarck; vice-president, Dr. George E. Chamberlain, Bismarck, and secretary and treasurer, Dr. Frederick B. Strauss, Glen Ullin.

Texas.

Red River County Medical Society.—Twenty physicians of the county met at Clarksville, February 15, and organized a county society with the following officers: Dr. John C. Foster, Clarksville, president; Dr. James C. Durrum, Clarksville, vice-president; Dr. W. Newlin Watson, Clarksville, secretary and treasurer, and Drs. Henry R. Smith, Detroit, Charles T. Clark, Clarksville, and M. C. McNew, censors.

Marion County Medical Society.—Pursuant to a call issued by Dr. Holman Taylor, councilor of the Fifteenth (Northeast) District, physicians of the county met at Jefferson and organized a medical society with an initial membership of 7, and the following officers: Dr. John A. R. Moseley, president; Dr. Robert L. Armistead, vice-president; Dr. Rogers Cocke, secretary and treasurer, and Drs. Robert A. Sterrett, Albert G. Clopton, and Archibald A. Terhune, censors, all of Jefferson.

Wisconsin.

Grant County Medical Society.—This society, which was reorganized in July last (The Journal, xli, page 384), received its charter from the state society January 4.

Society Proceedings.

NATIONAL LEGISLATIVE COUNCIL.

Meeting held at Washington, D. C., Feb. 11, 1904.

Dr. C. A. L. Reed in the Chair.

The meeting was called to order by Dr. Chas. A. L. Reed, Cincinnati, chairman of the National Legislative Committee of the American Medical Association. The following were present: Dr. Chas. A. L. Reed, Ohio; Dr. J. R. Currens, Wisconsin; Dr. Wm. E. Anderson, Virginia; Drs. J. B. Sanford and S. D. Van Meter, Colorado; Dr. R. E. Conniff, Iowa; Dr. E. J. McKnight, Connecticut; Dr. R. T. Sloan, Missouri; Dr. Henry Beates, Jr., Pennsylvania; Dr. E. E. Harris, New York; Dr. R. A. Marmion, U. S. N.; Dr. James Evans, South Carolina; Dr. J. W. Bovée, District of Columbia; Dr. Walter Wyman, U. S. Public Health and Marine-Hospital Service; Dr. J. T. Wrightson, New Jersey; Surgeon-General O'Reilly, U. S. A.; Dr. Edie, U. S. A.; Dr. W. C. Borden, U. S. A.; Dr. Chas. MacLachlan, New Rockford, S. D.; Dr. W. H. Sanders, Montgomery, Ala.

On motion of Dr. S. D. Van Meter it was voted that this body, consisting of the Committee on Legislation and the State Auxiliary Legislative Committee, be called the National Legislative Council. On motion of Dr. McKnight of Connecticut, Dr. C. A. L. Reed of Ohio, chairman of the Committee on Medical Legislation of the American Medical Association, was elected chairman of the Council.

On motion of Dr. R. E. Conniff of Iowa Dr. J. B. Sanford of Colorado was elected secretary.

Dr. Reed presented a brief summary of the matters to come up at this meeting, after which Surgeon-General Wyman was called on and explained what measures were now asked of Congress by his department.

On motion of Dr. Conniff it was voted that the matter of the Colorado Medical Legislative League be referred to a committee of three. The chairman appointed Drs. Van Meter, Currens and Conniff.

It was voted that the chairman appoint such committees as are needed to investigate and report on such special topics as the chairman had already brought to the attention of the Council. The chairman appointed the following: On Army bills: Drs. Bovée, Borden and Beates. On Navy bills: Drs. McKnight, Marmion and Anderson. On Public Health and Marine-Hospital Service: Drs. Conniff, Evans and Sloan. On antitoxin: Drs. Harris, Wyman and Welch. On state organization: Drs. Van Meter, Currens and Conniff.

The following committee was appointed to consider the matter of a department of public health in the National government: Drs. Wrightson, Harris, Sloan, MacLachlan and Anderson.

It was moved by Dr. Van Meter of Colorado to go into committee of the whole on the question of uniform state medical legislation, at such hour as the chairman might designate. Motion carried. The chairman appointed 4 o'clock p. m. as the hour.

It was moved by Dr. Harris that Dr. Wiley, chief of the Bureau of Chemistry, Department of Agriculture, be invited to address the body in the afternoon on proposed legislation relating to drugs and pure foods. Carried.

Dr. S. D. Van Meter of Colorado presented a proposed amendment to state laws to require a bond of indemnity from plaintiffs in action for damages, and moved that a committee be appointed to report at the afternoon session. Carried. Chair appointed Drs. Van Meter, Sloan and Currens.

At the afternoon session an invitation was received through Hon. Francis B. Loomis, First Assistant Secretary of State, to visit the President at 1 o'clock to-morrow; this was accepted with a vote of thanks to Mr. Loomis.

The committee on bills relating to the Public Health and Marine-Hospital Service reported as follows:

Whereas, The Secretary of the Treasury has submitted to Congress an estimate for an appropriation of $75,000 for the Hygienic Laboratory of the Public Health and Marine-Hospital Service, providing for a building and grounds. This laboratory was established by Congress in 1900 for the investigation of infectious and contagious diseases and matters pertaining to the public health. Thirty-five thousand dollars was appropriated for buildings which have been erected. In 1902 the scope of the laboratory was largely extended to the addition of three new divisions, viz.: the diseases of medical zoology, pharmacology and chemistry. To accommodate these a new building is necessary. The importance of this institution is further illustrated by the provision of law requiring an advisory board, consisting of the director, representatives of the Medical Department of the Army and Navy and of the Bureau of Animal Industry of the Department of Agriculture and five members in the regular employ of the government, but skilled in laboratory work in its relation to public health.

Wherefore, Your committee would urge on the American Medical Association the necessity of encouraging in every possible way the development of the Hygienic Laboratory on the broad lines laid down by Congress, and should urge that body to act favorably on the recommendations of the Secretary of the Treasury for the much-needed accommodations for the additional work imposed on it by Congress itself. Respectfully submitted.

R. E. Conniff.
R. T. Sloan.
James Evans.

The committee on legislation relating to the Navy reported:

Your committee has had under consideration the several bills referred to it, namely: "A Bill Authorizing the Establishment and Organization of a Corps of Dentists in the U. S. Navy," "A Bill for the Establishment and Organization of a Nurse Corps of Trained Women Nurses in the U. S. Navy," and "An Act to Reorganize and Increase the Efficiency of the Hospital Corps of the Navy of the U. S., to Define Its Duties and Regulate Its Pay," and that it finds that these measures have all received the approval of the Secretary of the Navy and of the Surgeon-General of the Navy and are now in the hands of the Committee on Naval Affairs of the two houses of Congress.

Your committee also reports that it unanimously approves the provisions of these measures and recommends that the National Legislative Council give them their sanction and whatever moral and active support they can through the legislative committee.

Your committee, however, feels that these measures are in such a favorable condition that they do not call for any definite action at this time by this subcommittee. Respectfully submitted,

E. J. McKnight.
R. A. Marmion.
Wm. E. Anderson.

The report was adopted and the committee discharged.

The committee on antitoxin reported as follows:

Resolved, That there should be prepared in the United States a standard antitoxin for determining the strength of antidiphtheric serum and that the Public Health and Marine-Hospital Service be requested to prepare and maintain said standard. Be it further

Resolved, That antidiphtheric serum shall be introduced into the United States Pharmacopeia, and that the standard prepared by the Public Health and Marine-Hospital Service be made officinal.

Resolved, That a copy of this resolution be sent to the Committee on the Revision of the Pharmacopeia. Respectfully submitted,

E. Elliot Harris.
Walter Wyman.

The report was adopted and the committee continued, with instructions to carry the purposes of their report into effect.

The special order on a standard medical act was called at 4 o'clock.

Dr. Van Meter of Colorado moved that a committee of five be appointed by the chairman, with instructions to formulate a standard medical practice act to be presented at an adjourned meeting of this council to be held at Atlantic City on the Monday preceding the regular meeting of the American Medical Association. After discussion, participated in by Drs. Van Meter, Currens, Bovée, Wrightson, Conniff, McKnight, Evans, Harris and Sloan, the motion was adopted. The chairman appointed Drs. Van Meter, Currens, Sanders (Alabama), Amberg (Michigan), Dibrell (Arkansas) as such committee.

The committee on state organization reported as follows:

We, the committee on state organization, report that we recommend the Colorado plan without reservation so far as consistent with local conditions.

We would further recommend that each state proceed to organize along such lines; each organization to contain the feature of convincing the public that medical registration laws are not promulgated for the benefit of the medical profession, but for the good of the people at large. Respectfully submitted,

S. D. Van Meter, Chairman.
J. R. Currens.
R. E. Conniff.

Dr. J. Wesley Bovée of the District of Columbia introduced Dr. Bryant, a dentist, who presented to the Council a bill amending the statutes relating to patents, relieving medical and dental practitioners from unjust burdens imposed by patentees holding patents covering methods and devices for treating human diseases, ailments and disabilities, and who asked the aid of the Council in passing this bill. After discussion by the various members of the Council the matter was referred to a committee of five consisting of Drs. E. J. McKnight, Dr. Henry Beates, Jr., Dr. R. T. Sloan and James Evans, to be determined on later in the day.

The following resolution was offered by Dr. Harris of New York:

Whereas, The well-known insanitary condition prevailing on the Isthmus of Panama, as shown by the large percentage of sickness and death among the laborers engaged in the previous work on the Panama Canal, and in view of the fact that the successful prosecution of future work on the canal must largely depend on the sanitary administration, which includes the prevention of sickness and the saving of the lives of the laborers, quite as much as on the solution of the great engineering problem;

Resolved, That a representative of the medical profession who is an authority on the advanced methods of investigating the causes and of the prevention of disease, should be appointed a member of the canal commission, that he may have authority to protect the health and thereby save the lives of persons engaged to work on the proposed Panama Canal.

The resolution was adopted, and on motion the chairman, Dr. Reed, was authorized to use it as he saw fit.

Dr. H. W. Wiley, chief of the Bureau of Chemistry, Department of Agriculture, was next introduced, and addressed the Council on the subject of the pure food bill now pending in the Senate.

At the evening session Dr. J. W. Bovée presented the report of the committee on Army medical bills. (See The Journal A. M. A., pages 605 to 607, Feb. 27, 1904.)

The report of committee on a bill relating to patents to relieve medical and dental practitioners from unjust burdens imposed by patentees, etc., reported that as the bill does not directly affect the medical profession it was not within the jurisdiction of the committee to take action thereon. The report was accepted and the committee discharged.

On the roll call of states reports on the condition of medical legislation were presented as follows: Dr. S. D. Van Meter, for Colorado; Dr. E. J. McKnight, Connecticut; Dr. J. W. Bovée, District of Columbia; Dr. R. T. Sloan, Missouri; Dr. L. E. Harris, New York; Dr. Henry Beates, Pennsylvania; Dr. James Evans, South Carolina; Dr. Currens, Wisconsin; Dr. Chas. MacLachlan, South Dakota.

On motion the chairman at his discretion was requested to make a referendum on each of the following questions:

First: Appointment of a medical representative on the Panama Canal Commission.

Second: On the Army medical bills.

Third: On the pure food and drug bills.

On motion the Council adjourned to meet at Atlantic City June 6, 1904.

CLEVELAND ACADEMY OF MEDICINE.

Regular Meeting of the Section of Experimental Medicine, held January 22, 1904.

Dr. William H. Weir, vice-president of the Section, in the Chair.

The Effects of the Simultaneous Action of Pilocarpin and Atropin on the Development of the Embryo of the Starfish and Sea-urchin.

The experiments embodied in this paper by Dr. Torald Sollmann were a sequence to the work of A. P. Mathews, who has observed that pilocarpin stimulates the development of the embryos of asterias and arbacia, while atropin depresses it. This affords an opportunity of studying the result of the combined action of two poisons having opposite effects on the same cell, and presumably on the same structure. The method consists simply in placing the fertilized ova in salt water containing varying concentrations of the two alkaloids, and comparing the development at daily intervals for about a week. Seven experiments were made in all. Consideration of the results obtained led to the following conclusions:

Atropin alone is absolutely devoid of stimulant action, the smallest effective doses being depressant. Pilocarpin stimulates in small doses and depresses in larger doses. If the action is prolonged, the depressant phase predominates more and more.

When the solutions contain both poisons; it is found that atropin prevents the stimulating action of pilocarpin completely, and this effect appears even with doses of atropin which seem entirely inactive when used alone.

Small stimulant doses of pilocarpin lessen the depressant action of moderate doses of atropin, but in no cases do they remove the depression entirely. Larger stimulant, and all depressant doses of pilocarpin increase the atropin depression. This shows that both drugs are acting on the cell, even when they mutually obscure their action, and also shows that small doses of a stimulant are more efficient than large doses in removing a depression, providing that both poisons act on the same cell.

An Experimental Research Into the Cause of Death from Electric Shock.

This paper by Drs. G. W. Crile and J. J. R. Macleod gave an account of the effect of industrial electric currents on anesthetized dogs. With alternating currents (as used for lighting purposes), results in general confirmatory of those of Prevost and Batelli were obtained, the main points of practical interest in the present inquiry being the variable susceptibility of the dogs to electricity, and the fact that death was invariably caused by fibrillary twitching of the heart.

The variable susceptibility was very evident with a voltage of 2,300 volts, some dogs being killed by a momentary application, while others were able to withstand the current for several seconds, in fact, in some cases, as long as the current could be kept on without burning the tissues. The electrodes were in all cases applied similarly, one to the back of the head after the skin had been moistened, or in the mouth, the other to the hind legs or in the rectum. Records of the mean arterial blood pressure were obtained during the experiment, the curves showing a momentary rise of small amount, due to contractions of the muscles, followed by a fall to the abscissa. This fall was found to be due in the first instance to vagus inhibition, and in some dogs this was the only effect of the current, for it was found that in these it could be prevented by the preliminary administration of atropin. These were the dogs which recovered. In other dogs, however, the fall of blood pressure persisted, even after the current was broken, and on opening the thorax the heart was found to be in a condition of fibrillary twitching. Several methods were tried with the hope of restoring the normal heart beat, but with no avail. Perfusion of the coronary arteries with Locke's fluid, or with defibrinated blood, massage of the heart, administration of atropin, vagus stimulation and the application of the anode of a constant current were found to have no effect on such a heart. Experiments were then tried in which the electrodes were applied so that none of the current passed through the heart; for example, to the back of the head and to the front of the neck, to the two anterior extremities or to the two posterior extremities. The current in none of these cases produced any other effect than a vagus inhibition, which could be prevented by the use of atropin or by vagus section, and a cessation of respiratory movements, together with tonic convulsions. All these effects passed off when the current was broken, except in some instances, the cessation of the respiratory movements, but these movements could be recovered by the use of artificial respiration. Some of these latter dogs were allowed to come out from under the anesthetic, and were found to be in every way normal. Even 2,300 volts had no visible permanent effects on the respiratory and other centers. In one dog where a current of 2,300 volts was passed between the front legs, fibrillary twitching appeared, probably on account of the spread of the current to the heart. The variable results recorded in the first series of experiments were undoubtedly due to a variable amount of electricity having traversed the heart. By applying the electrodes direct to the heart it was found that fibrillary twitching was produced by the lowest current at disposal (1 volt).

These results suggested that it might be possible to diminish the danger of high electrical currents, by applying to the body well above and below the region of the heart two copper bands, connected by copper wire. In this way a large portion of the current would be taken up by the copper bands and would therefore be excluded from the heart. Several experiments with such an arrangement gave very encouraging results, and the application of the measure is at present being worked out as a prophylactic measure.

With constant currents, 660 volts as used for electric street cars, make and break were alone found to have any action. At both, vagus inhibition, followed by fibrillary twitching of the heart, and death resulted.

NORFOLK DISTRICT MEDICAL SOCIETY.

Meeting held at Jamaica Plain, Mass., Feb. 23, 1904.

The President, Dr. Walter Channing, in the Chair.

The New Harvard Medical School.

Dr. **Harold C. Ernst**, professor of bacteriology in Harvard Medical School, illustrated this subject by stereopticon views. This was the first full explanation of the plans which has been given to the medical profession.

Much time was spent in the choice of a location, and finally a piece of land containing 26 acres was purchased. It is an irregular square, bounded on two sides by Francis Street and Huntington Avenue and faces the end of Tremont Street. Not all this land is to be occupied by the school. On one corner will be the Brigham Hospital, while in other portions will be located the Good Samaritan Hospital, the Children's Hospital and the Infants' Hospital. Almost adjoining is the new Deaconess' Hospital, and but a few minutes' walk the Baptist Hospital, and the Woman's Charity Club Hospital on Parker Hill, overlooking this location.

The medical school itself will face on Longwood Avenue. Plans are already far advanced for the city of Boston to build a new entrance to its beautiful Fenway Park, passing out between the Venetian Palace of Mrs. John L. Gardner and the new Simmons College and ending just in front of the court of the medical school. This court will be rather more than 400 feet deep from the street. At the back will appear the administration building and on either side two laboratory buildings. These will be on one side, in front, for pathology and bacteriology, and about 50 feet back of that anatomy, histology and embryology. On the other side of the court, in front, hygiene and pharmacology, and back physiology and physiologic chemistry. The buildings are to be of white marble with practically no wood in their construction, and will present a most imposing architectural appearance to any such approach from the parkway.

The group of five detached buildings is the result of very much study and gradual development of ideas. The leaders in all this work have been Drs. Henry P. Bowditch and John C. Warren. Land and buildings are to cost $2,500,000. The purpose has been to relieve the present pressure on students and professors and to establish a great center for medical education and research.

The four laboratory buildings are in general very similar in construction. Each has a front on the court of 180 feet, 74 feet of this being in the center and 53 feet, on each side of this central portion, being the front of two wings running back from the court. There are three floors. In the central portion is an amphitheater to seat 342 students. The professor enters this from his own special rooms on the lower floor, which, on the level with the ground, is styled the basement. Students enter on the first floor. Here, beside the entrance for them to the amphitheater, is the department library, over the professor's rooms and in front of the amphitheater. This last is lighted in each case by overhead windows. The wings constitute the laboratories. One subject is to be taught in each wing and allied subjects are to be in the wings of each building as indicated above. This is in accordance with Harvard's new system of "extensive" instruction. A student will, therefore, spend his mornings in one wing of a building and his afternoons in the other wing, only leaving his laboratory to pass into the amphitheater for a lecture, and not leaving the building at all, unless for lunch. Lockers for the students are provided along the hallways. Plans are made to care for a class of 200, not including special research students. The laboratories are on the unit system, each being planned to accommodate 20 students, and hence allowing of indefinite expansion by building on at the ends of the wings. Students are grouped on the first floor and research workers on the second floor. The basement has a height of 12 feet and the other two stories of 18 feet each. There is also a further space above each building which is not evident from the outside, and which will be largely used for the animals needed in each of the departments.

The building for pathology and bacteriology has some peculiarities in its internal arrangements. There are large laboratories for the students instead of the unit laboratories, and the students are put in one wing, one laboratory being superimposed on the other. In the other wing are the smaller rooms for research workers, and two extra floors have been introduced giving rooms only 9 feet high. The library in this building, which is to be known as the Huntington Building, is larger, being 35x70 feet. The animals are to be kept in a building to be built back of the amphitheater between the wings. Externally the four buildings will be much alike, the two on either side of the court being separated by a space of almost 50 feet.

The administration building, at the back of the court, will be considerably more elaborate architecturally. It and the two buildings nearest it are the gift of J. P. Morgan. It will be occupied by offices on the first floor, a lecture room seating 340, and the Warren Museum on the second and third floors. The basement, which in this case, too, is level with the ground, will be devoted to the uses of students, lunch, lounging, library, reading rooms, etc.

The faculty have already established a students' health committee and a students' aid committee, whose functions will be much enlarged in the new buildings. A dormitory is much desired. Instruction in the new school will include, beside the present courses, such advanced work in medicine as shall enable a man to earn a Ph.D. or Sc.D.

Harvard's entrance standard, A.B., or its equivalent, has cut her enrollment from 750 to a little over 400. The numbers are again increasing, however. For the maintenance of this plant there are $1,500,000 funds available. Much more is needed. The per capita expense throughout the university gives the student $275 worth of instruction for the $200 he pays for tuition.

NEW YORK ACADEMY OF MEDICINE.

Meeting held Feb. 18, 1904.

The President, Andrew H. Smith, M.D., in the Chair.

The Hospital Car—Its Equipment, Uses and Importance.

Dr. **Wm. W. Sanford** presented drawings and gave a description of such a car and pleaded that many should be introduced on the various railway systems and placed at certain intervals ready at all times to answer calls at times of accidents.

Dr. **Andrew H. Smith** believed that if the companies would look to the needs of the injured more and have such cars the verdicts of juries would be less often against them than is the case at present.

The Rationale of the Natural Arrest of Consumption.

Dr. **W. B. McLaughlin**, Austin, Texas, considered the effect of sea voyages, outdoor life, etc., on the disease, and made suggestions as to ideal treatment. The study of the forces employed by Nature in dealing with the tubercle resolves itself naturally into the study of the pure tuberculosis infection and the study of complicating infections. Nature walls off pure tuberculosis infections with connective tissue, the rapidity of the process being in proportion to the vascularity of the part. In chronic ulcerative phthisis the mischief and ultimate death of the patient is largely caused by the complicating infections, the micro-organisms of which, if left to themselves and not reinforced by new infections, would become attenuated and finally die out. Experiments with dogs show this. It seemed to him that the deduction was inevitable, that if a patient suffering from chronic ulcerative phthisis was kept in sterile air and his person kept as near aseptic as possible for a sufficient length of time, he must in obedience to the laws of healing recover from his lesion, so far as his ulcerative phthisis was concerned, i. e., his ulcerative phthisis would be converted into a pure tuberculosis, or what was known as a latent tuberculosis. He said that autopsies taught that only 40 per cent. of these cases of latent tuberculosis became active. Thus it could be logically expected that out of every ten patients treated six would remain well, and four become reinfected and be compelled to return for another period of treatment. Many cases of ulcerative phthisis are converted into cases of pure tuberculosis by modern methods of treatment, but the results can not be obtained with mathematical accuracy until we place our patients where reinfection is a practical impossibility.

DISCUSSION.

Dr. George L. Peabody said that the author's purpose might be accomplished in the deserts of Egypt, where sterilized air might be had, or in mid-ocean, but how such air could be supplied artificially he could not see.

Dr. John B. Huber agreed that the tubercle bacillus was not particularly dangerous *per se*, the danger was in mixed infection. The prevention, therefore, of the mixed infection should be the great object.

Col. W. C. Gorgas did not see how such a room could be fixed up and kept aseptic as had been tried in surgical cases. He believed that a very near approach to what was sought for was to be had in a plentiful supply of fresh air. Patients taken into municipal sanatoria and treated in this way, he believed, would get well in three or four months, instead of in from eight to ten months, as at present; this would be a great saving to cities.

Dr. S. A. Knopf emphasized the importance of plenty of fresh air, sunlight, the abolishing of dark rooms with their foul air and filth. In dealing with the tuberculosis problem, he said we should seek after the ideal and do away with things that were not practical. To render and keep the atmosphere of a room aseptic was impossible, but much could be done by teaching the masses to love fresh air; this was practical.

Dr. McLaughlin said that if such a thing as he suggested could be done it would be a great advance in the therapeutics of tuberculosis. So far as the sterilizing of the air was concerned much could be done by the removal of the dust.

Therapeutics.

[Our readers are invited to send favorite prescriptions or outlines of treatment, such as have been tried and found useful, for publication in these columns. The writer's name must be attached, but it will be published or omitted as he may prefer. It is the aim of this department to aid the general practitioner by giving practical prescriptions and, in brief, methods of treatment for the diseases seen especially in every-day practice. Proper inquiries concerning general formulae and outlines of treatment are answered in these columns without allusion to inquirer.]

Melancholia.

In outlining his treatment of melancholia, Aiken, in *West. Med. Rev.*, states that whatever exceptions may be granted members of the family or relatives to act as nurses, they should never be the constant attendants on a case of melancholia. The patient's reasoning power is not diminished, but perverted, and the presence of relatives intensifies the mental pain and deepens the sense of unworthiness which is the burden under which the patient is suffering, fearing, as he does, that he will never regain his social or moral standing. The alimentary canal must be cleansed and kept evacuated, preferably by salines, and the patient must be given nourishment. Milk, eggs, meat juices, soups and other nourishing and easily assimilated food should be administered six to eight times every twenty-four hours. Sleep is best induced by the hot bath, a hot drink, and the administration of trional, sulphonal or such other hypnotics as do not depress the heart. Opium, at least, theoretically so, is contraindicated on account of its tendency to lock up the excretory organs.

The author has had considerable asylum experience and has derived splendid results from the use of tincture of ipecac and opium or pulverized opium in the treatment of melancholia. It moistens the skin, liquefies the alvine discharges and diminishes mental anxiety. The overloaded bowel must be relieved and will sometimes produce sleep when hypnotics fail. In the slow and feeble pulse and when there is vasomotor contraction, the use of belladonna relaxes the arteries, giving a better peripheral circulation. For quieting maniacal outbursts the fluid extract of gelsemium by the mouth or hyoscin hydrobromate subcutaneously and the prolonged use of the hot bath are the best remedies. The nurse must possess an unlimited amount of good nature, even under the most trying circumstances.

Syphilis in Infants.

According to M. Schwab, in *Med. Press*, injections of biniodid of mercury in a watery solution are superior to all other classical methods and the hypodermic treatment should take the place in the treatment of infantile syphilis. It is without danger and is rapid and certain. The average dose should be from one to two milligrams given daily for ten or fifteen days and then suspended for the same length of time, when it should be resumed again for ten days.

The following formula is recommended by the author:

℞. Hydrarg. biniodidi..................gr. 4/5 |05
Sodii iodidi ....gr. 4/5 |05
Aq. destil. ....ʒiiss 10|

M. Sig.: Twenty to thirty drops to be injected into the lumbar region once daily.

Prevention of Iodism.

In an abstract in *Med. Review*, F. Lesser states that it is usually assumed that when potassium iodid is taken into the stomach containing its normal acid secretions, it is broken up and free iodin given off, which produces symptoms of iodism, and to prevent this it has been prescribed with sodium bicarbonate, belladonna or sulphanilic acid. Should it enter the body as free iodin it immediately combines with the albuminous compounds of the body. However, according to the author, with the exception of the thyroid gland no organ contains albuminous compounds of iodin, so that it has never been proven that potassium iodid is not in itself capable of producing iodism, just as iodoform may produce toxic symptoms without decomposition. Iodipin, which is a compound of iodin in sesame oil, is recommended by the writer as a preparation which does not produce iodism if given hypodermically, but has no advantage over potassium iodid if given by the mouth. In whatever way it may be administered, iodipin is excreted as potassium iodid. So he concludes that if either iodipin or potassium iodid be given in small doses and frequently, iodism is not so liable to follow. For instance, instead of giving tablespoonful doses of the mixtures three times a day, a teaspoonful should be given every hour for twelve hours; the total quantity given and therapeutic results are just the same, but iodism is avoided.

Pneumonia.

The use of calomel in pneumonia has been recommended by C. Bertazzoli in *Med. News*. Although he does not consider this preparation as a specific, it should be administered in generous doses, and should be accompanied by such other drugs as provoke energetic peristalsis so as to procure its elimination from the organism rather than be absorbed. He, therefore, administers it combined with scammony because of the latter's effect on the intestine. The calomel produces antipyretic effects and seems to cut short the further spread of the inflammatory process. The headache is also relieved, as well as the delirium. It is also a good diuretic and a reliable disinfectant.

To lower the temperature and pulse in pneumonia, the following combination containing sodium salicylate is recommended:

℞.	Sodii salicylatis	ʒi	4
	Syr. simplicis	ʒiii	12
	Aquæ q. s. ad	℥vi	180

M. Sig.: One tablespoonful every hour until the patient perspires freely.

To relieve the cough and pain in pneumonia Danforth, in *Applied Ther.*, recommends the following combination:

℞.	Codeinæ	gr. ii	12
	Liq. ammon. acetatis		
	Spts. chloroformi, āā	ʒiv	15
	Syr. lactucarii q. s. ad	℥ii	60

M. Sig.: One teaspoonful every hour.

As a substitute for the foregoing prescription the codein may be combined with camphor or ammonium carbonate in order to stimulate the functions of skin.

After the stage of resolution, if cough is troublesome, some expectorant mixture similar to the following is recommended:

℞.	Morph. sulph.	gr. i	06
	Ammon. carb.	ʒi	4
	Aquæ camph.	℥i	30
	Syr. pruni virg.	℥ii	60

M. Sig.: One teaspoonful every three hours.

Typhoid Fever.

In the general management and treatment of typhoid fever at Johns Hopkins Hospital, according to an article in the *Practitioner*, rest, diet and baths comprise the important parts, as no drugs are given unless there be some special indication. Strychnia is given in doses of grain 1/50 each (.0003) every four hours if the pulse becomes rapid and weak. The mouth receives constant care. As a mouth wash the following is recommended:

℞.	Sol. acidi carbol. (1 to 20)		
	Glycerini, āā	℥i	30
	Sol. acidi borici (sat.)	℥viii	240

M. Sig.: To be used as a mouth wash after each feeding.

As to the bowels, a state of constipation is preferred. If necessary, the bowels are moved every second day by a simple enema, preceded sometimes by a large injection of oil. No purgative is given by the mouth during the attack. Diarrhea is taken as a signal for the reduction of the diet, milk being generally cut off. If the diarrhea is not then checked, bismuth is given in full doses or the lead and opium pill is given. In severe cases an enema of laudanum and starch is administered. For the tympanites turpentine is used externally, by the mouth or by enema. The long rectal tube, sometimes inserted and allowed to remain for half an hour, may be of advantage. Alcohol is not given as a routine with the baths. However, if there be a severe toxemia or a failing circulation, it is given freely, because the patient's condition demands it and not because he is getting the baths.

None of the so-called intestinal antiseptics is given. If the heart becomes rapid, pulse weak, and first sound indefinite strychnia in doses of grain 1/60 to 1/20 (.001-.003) is given every four hours with fine results; but it is not given continuously for twenty-four hours.

For the severe headache small doses of bromid or codein or opium are sometimes given, if application of the ice bag is not sufficient.

To prevent severe toxemia baths are of great benefit and if patients can not be induced to take sufficient liquid by the mouth, saline infusions are given regularly three times a day, giving altogether a liter or a liter and a half of fluid. In some cases fluid can be given by the bowel, and if patients refuse to swallow, food is given through the stomach tube. Convalescence is regarded as the most troublesome part of the treatment. The diet should include clear soups, broth, gruel and beef tea when the temperature becomes normal. Junket, custard, jelly and soft-boiled egg may be added after a few days. Soft toast may be added at the end of the first week. From the seventh to the tenth day scraped beef or sweet bread may be added. Iron is given if any grade of anemia is present.

In the treatment of hemorrhage absolute quiet is secured, if necessary, by morphin hypodermically, the diet is reduced to albumin alone or all food discontinued, and it is advisable to discontinue stimulants for a time. A light ice bag is applied to the abdomen. The danger of giving opium by the mouth is in masking the symptoms of a perforation, which so frequently accompanies hemorrhage.

If the blood coagulation time of a patient is longer than normal when entering the hospital, calcium chlorid is given in fifteen-grain doses (1.00) three times a day. Its value as a prophylactic measure has not yet been decided.

Saline infusions should not be given after a hemorrhage unless the patient be in collapse or exsanguine.

Medicolegal.

Construction of Statute as to "Other Agency."—The Supreme Court of New Jersey holds, in the case of State vs. Herring, that an osteopath whose treatment of his patient consists simply of the manipulation of the body, does not violate that provision of the act of May 22, 1894, Section 8, which forbids the applying of "any drug, medicine or other agency or application" by an unlicensed person. It says that the phrase "other agency or application" is a very broad one, and, in its general sense, would undoubtedly include the use of the hands. But it is conjoined to the terms "drug" and "medicine," which are much more special; and, under the maxim, "Noscitur a sociis" (the meaning of a word is or may be known from the accompanying words), its interpretation should be such as will confine it to the class in which its special associates stand. Moreover, as a phrase employed to create and define offenses unknown to the common law, it must be strictly construed. In forbidding an unlicensed person to apply any drug or medicine for remedial purposes, the legislature plainly contemplated the use of something other than the natural faculties of the actor—some extraneous substance. A similar restriction must attach to the more general terms "agency" and "application," and they must likewise be held to import only some extraneous substance.

Injuring Own Body, or Another's with Assent—Abortion.—The Supreme Court of Errors of Connecticut says, in the case of State vs. Carey, where there was a conviction of an attempt to produce a criminal abortion, that, ordinarily, a man may injure his own body by his own hand or the hand of an agent, without himself violating the criminal law. And the agent who injures another's body with such assent may commit a crime of which the injured party is not guilty. A murderer can not justify himself by proving the assent of his victim. Non-interference with a man's control of his person is not extended to the disposition of his life; but taking one's own life is a thing distinct from the crime of murder. If a man in a moment of weakness should assent to the opening of a vein by another for the purpose of ending his life, and, when in the immediate expectation of death, should make a statement of the facts attending the assault, it would hardly be asserted, on trial of his assailant for felonious killing, that the dying declaration must be received with all the infirmities attending the testimony of an accomplice in the crime. This distinction between a man's injuring his own body himself, or assenting to such injury from another, and the crime that may be committed by another in inflicting such injury, has been strongly drawn in crimes akin to the one under discussion. At common law an operation on the body of a pregnant woman, with intent thereby to cause her miscarriage, is an indictable offense, but it is not an offense in her to so treat her own body, or to assent to such treatment from another; and the aid she may give to the offender in the physical performance of the operation does not make her an accomplice in his crime. It is a crime which, in the nature of things, she can not commit. And so it has been held, under various statutory forms of this offense, that the victim of an attempted abortion can not be an accomplice in a crime which consists in an operation on her body, with or without her consent, by another person, with intent to produce abortion. Again, the court says that the criminal intent and moral turpitude involved in the violation by a woman of the restraint put on her control over her own person is widely different from that which attends the man who, in clear violation of law, and for pay or gain of any kind, inflicts an injury on the body of a woman endangering health and perhaps life.

Constitutional Limits to Scope of Medical Practice Acts.—The Supreme Court of North Carolina, speaking through Chief Justice Clark, in the case of State vs. Biggs, refers to the incorporation of "The State Medical Society," in 1858-59, and the sustaining, but not without great hesitation, of the medical-practice act, passed in 1885, and says, among other things, that, after the decisions in State vs. Call, 121 N. C. 646, and State vs. McKnight, 131 N. C. 723, moderation and wisdom would have suggested that the matter rest. Those who wished to be treated by practitioners of medicine and surgery had the guaranty that such practitioners had been duly examined and found competent by a board of men eminent in that high and honorable profession, and those who had faith in treatment by methods not included in the "practice of medicine and surgery," as usually understood, had reserved to them the right to practice their faith and be treated, if they chose, by those who openly and avowedly did not use either surgery or drugs in the treatment of diseases. The courts have declared that they possessed this right, and that the legislature could not, under the constitution, restrict all healing to any one school of thought or practice. What is "the practice of medicine and surgery" is as well understood, and its limits, as the practice of dentistry. The courts have also held that of the many schools of "medicine and surgery" the legislature could not prescribe that any one was orthodox and the others heterodox, but that those professing the different systems—"allopathic," "homeopathic," "Thompsonian," and the like—should be examined on a course such as is taught in the best colleges of that school of practice, but that it is not essential that a member of each, or of any special school, should be on the board of examiners. Chief Justice Pearson noted, as of common knowledge, and reiterated, that railroad charters are drafted by "promoters," and hence should be construed most strongly against the grantees and in the interest of the public. The same construction can fairly be applied to act of 1903, amendatory of the charter of this corporation, in whose supposed interests it was evidently drafted, and not solely in the interest of the public. Under the guise of "construction" of those well-understood terms, the "practice of medicine and surgery," the act essays to provide that the expression "'practice of medicine and surgery' shall be construed to mean the management 'for fee or reward' of any case of disease, physical or mental, real or imaginary, with or without drugs, surgical operation, surgical or mechanical appliances, or by any other method whatsoever." That is, the practice of surgery and medicine shall mean practice without surgery or medicine, if a fee is charged. If no fee is charged, then the words "surgery and medicine" drop back to their usual and ordinary meaning, as by long usage known and accustomed. Where, then, is the protection to the public, if such treatment is valid when done without fee or reward? Yet, unless the act confers, and is intended solely to confer, protection on the public, it is invalid. The legislature can not forbid one man to practice a calling or profession for the benefit or profit of another. The act is too sweeping. Beside, the legislature could no more enact that the "practice of medicine and surgery" shall mean "practice without medicine and surgery" than it could provide that "two and two make five," because it can not change a physical fact. And when it forbade all treatment of all diseases, mental or physical, without surgery or medicine, or by any other method, for a fee or reward, except by an M.D., it attempted to confer a monopoly on that method of treatment, and this is forbidden by the constitution. This is a free country, and any man has a right to be treated by any system he chooses. The law can not decide that any one system shall be the system he shall use. If he gets improper treatment for children or others under his care, whereby they are injured, he is liable to punishment; but whether it was proper treatment or not is a matter of fact, to be settled by a jury of his peers, and not a matter of law, to be decided by a judge, nor prescribed beforehand by an act of the legislature. The public has a right to know that those holding themselves out as members of that ancient and honorable profession—the medical profession—are competent and duly licensed as such. The legislature can exert its police power to that end, because it is a profession whose practice requires the highest skill and learning. But there are methods of treatment which do not require much skill and learning, if any. Patients have a right to use such methods if they wish, and the attempt to require an examination of the character shown for the application of such treatment is not warranted by any legitimate exercise of the police power. In this case, the court says, the defendant was found guilty of the following acts, and no more: (1) Administering massage baths and physical culture; (2) manipulating muscles, bones, spine and solar plexus; (3) kneading the muscles with the fingers of the hand; (4) advising his patients what to eat and what not. And all this without prescriptions, without any drugs or surgery. These acts, by the terms of the statute, are harmless and not indictable, "unless done for fee or reward." There is nothing in this treatment that calls for an exercise of the police power by way of an examination by a learned board in obstetrics, therapeutics, materia medica and the other things, a knowledge of which is so properly required for one who would serve the public faithfully and honorably as a doctor of medicine. And the court reverses a conviction of unlawfully practicing medicine and surgery, Justices Walker and Connor concurring in the result.

Current Medical Literature.

AMERICAN.

Titles marked with an asterisk (*) are abstracted below. Titles of articles will be listed but once, though the articles appear later in other journals.

Medical Record, New York.

February 20.

1 *Heart Syphilis. I. Adler.
2 *High-frequency Currents in the Treatment of Skin Diseases. Charles W. Allen.
3 *Medicolegal Aspect of Accidents Caused by the Roentgen Rays. Carl Beck.
4 Insomnia. Eliot Gorton.
5 Common Duct Stone Associated with Acute Septic Cholangitis. George E. Brewer.
6 Case of Choroidal Inflammation, with Permanent Loss of Vision, Caused by Excessive Use of the Eyes During a Comparatively Short Period of Time. D. B. St. John Roosa.

1. **Heart Syphilis.**—From his study of the subject, Adler holds that syphilis of the heart is not rare, but rather common. It is often possible to make a diagnosis of heart syphilis with exactness, but more often the diagnosis is not absolute. He holds, however, that we should take into account syphilis as a possible factor in every case of heart disease and at all ages. He would not imply by this that every case should be subjected to iodid of potash or mercurial inunctions, but it should be perfectly clear to us why syphilis should be excluded. The patient should have the benefit of the doubt, as in certain nervous diseases. Possibly heart disease should also be considered in every case of syphilis, and the same made the object of careful and constant observation. The pathologic changes may be quite advanced when they produce perceptible disturbances, and the likelihood of relieving the condition is the greater the earlier the specific process is understood. One must not look for pronounced physical signs in the early stages, and in every examination of a syphilitic patient close attention should be paid to the heart, and he should be discharged only when it is insured that the specific disease has disappeared and the heart is as far as possible in normal condition.

2. **High Frequency Currents in Skin Diseases.**—Allen defines and describes the method of application of high frequency currents in skin disorders, gives a summary of 175 histories of which he has records of the use of these currents, and also reviews the opinions and statements of European authorities on the subject. He holds that these currents are a decided advantage in skin diseases, but especially in connection with other measures, and are curative in a restricted class of cases. In the larger class they aid in relieving the symptoms, namely, those attended with pruritus. On the whole, high frequency currents are inferior to the *x*-ray in skin work, but the two go well together.

3. *The X-Rays.*—Beck reviews the lesions produced by the *x*-rays, especially from a medicolegal point of view, and insists on the importance of making applications carefully and suited to the case. Under modern methods the chances of serious damage are greatly lessened, and the fact that inflammation produced by the *x*-ray is a necessary accompaniment of the therapeutic effect in many cases is also emphasized.

Medical News, New York.

February 20.

7 *Administrative Control of Tuberculosis. Hermann M. Biggs.
8 *House Infection of Tuberculosis. Lawrence F. Flick.
9 *Case of Tetany. Joseph Barsky.*
10 Two Cases of Severe X-ray Necrosis, Presenting Some Unusual Features. Clarence E. Skinner.
11 *Value of Vaginal Cesarean Section; with Report of Two Cases. M. Stamm.

7. **The Administrative Control of Tuberculosis.**—The measures that are required for the administrative control of tuberculosis are stated by Biggs as follows: 1. Compulsory notification and registration of all cases. This does not require any action on the part of the authorities unless it is absolutely necessary. 2. Facilitating early and definite diagnosis by affording means of free sputum examination in case of suspected disease. 3. Educational measures, both for the profession and public, on the subject of tuberculosis by circulars, agitation in the lay press, lectures, etc. 4. The visitation of consumptives at their homes and the giving of verbal instruction and leaving circulars and directions how to manage the disease, also to see to the removal of cases if necessary. 5. The disinfection or renovation of rooms or premises which have been vacated by consumptives by death or removal. A trained medical inspector should be sent around. Where the walls and ceilings of the premises are filthy or in bad condition, renovation by the owners should be required and the premises should be vacated and their occupation by others until proper measures are taken should be prohibited. He notices at length some of the difficult problems in this respect, such as the frequent changes of residence of consumptive cases, and does not feel sure that eventually notification by the owner of the removal of a consumptive will not be necessary. 6. Provision should be made for repeated visits to cases in tenement houses when the patient can not be removed to an institution. This can best be done by trained nurses. 7. Suitable food should be provided by the sanitary authorities where the patients are in such destitute circumstances that proper nutrition can not be secured. 8. The sanitary authorities should provide three classes of institutions: free dispensaries for ambulatory cases; hospitals for the care of advanced cases, to receive patients discharged from other institutions, or cases living in lodging houses or inmates of public institutions not affording facilities for their care, and cases that have been removed from their homes on account of the danger of communication; also those that can not otherwise be treated at home. Thirdly, sanatoria in favorably situated country districts for the treatment of early and incipient cases. Patients discharged from such sanatoria are valuable factors for the education of others. 9. The sanitary authorities should issue regulations applicable to public institutions as to the care of consumptives, including under this not merely the hospitals but penal institutions, homes, asylums, etc. 10. There should be regulations enforced prohibiting spitting in public places, conveyances, sidewalks, etc. It has been the custom also in New York to communicate with the attending physicians in cases of tuberculosis to inquire as to the progress of the case, to supply sanitary cuspidors, and thoroughly inspect and study the tenement-house region. It has been said of late years that the decrease in the mortality from consumption has been to a certain extent due to reporting these deaths under the head of pneumonia. An investigation was made as to this point with the result of finding very few pneumonia deaths that could properly be attributed to consumption. The investigation is still being continued, and whenever there is reason to believe that a death has been improperly credited, a change is made in the reports. Biggs does not believe that the great and rapid fall of the tuberculosis death rate is a result of false diagnosis.

8. **House Infection of Tuberculosis.**—Flick points out that tuberculosis is only communicable within confined quarters, and that the house is the essential element of communicability. It prepares the soil for the tubercle bacillus, and furnishes the amount of contamination which is necessary to overcome the resistance of the individual. The workshop is another common means of spreading the disease. Enclosures, such as hotels, churches, public halls, places of amusement and public conveyances where the public stay but a short time, are very unlikely to convey the disease. Consumption can properly be called a house disease.

11. See abstract in The Journal, xli, p. 871.

New York Medical Journal.

February 20.

12 *Clinical Importance of Aerophagia. Heinrich Stern.
13 *Some of the More Unusual Results of Movable Kidney. Charles P. Noble.
14 *Sex Differentiation and Education. William Lee Howard.
15 Osteomyelitis. Howard J. Williams.
16 *Artificial Fluorescence of Living Tissue in Relation to Disease. (Concluded.) William J. Morton.
17 *Roentgen Rays in the Treatment of Pruritus Ani. J. Rawson Pennington.

12. **Aerophagia.**—*Stern thinks this habit or condition has been generally too much overlooked in the human species. It is a common veterinary affection, and the crib biting of* horses finds its analogy in certain hysterical women. In most of the subjects, however, some obstruction in the upper respiratory vessels or asthmatic contraction of the lung tissue seems to predispose. The symptoms generally appear after eating. The patient feels a sense of weight and tension in the gastric region and frequently inodorous eructations occur. The volume of expelled gas is sometimes enormous. In the confirmed aerophagic the gastric symptoms much resemble those of pneumatosis on the basis of motor insufficiency of the organ, differing little from the phenomena of excessive gas formation in the stomach and its retention there. In the aerophagic, however, the gas is more or less odorless. During its presence in the stomach the patient may have shortness of breath, cardiac palpitation, cephalalgia and vertigo. Anorexia and vomiting are of frequent occurrence, together with weakness and emaciation. Stern believes, however, that active extensive work in the open air and overindulgence in outdoor sports are the most frequent causes, and gives illustrations from bicyclists and baseball players. The aerophagic condition, however, is not limited to the stomach. The air passes into the duodenum and other portions of the intestinal tract, and he knows of a number of cases of suspected typhoid, appendicitis, etc., due to this cause. In the hysterical case the air may be thrown out almost immediately; in fact, may not go below the esophagus. When the attack can not be abated and the hysterical patient is used to it, the condition need not be combated very much. Habitual air swallowers hardly ever seek the services of a physician and submit reluctantly to treatment. Moral treatment must be largely relied on in hysterical cases. In the non-hysterical the stomach tube should be employed whenever practicable, followed by irrigation with large quantities of water, to which has been added chloroform water about 10 c.c. per liter, followed by a prescription of bismuth, salicylate and menthol. Occasionally emetics may be employed and turpentine in emulsion. Aromatic spirits of ammonia, well diluted, will aid in the expulsion of gas from the intestines. In case there are cramps from compression of the air in the intestines nothing but ice and water should be given until the small intestines have been completely evacuated. Opium may

have to be resorted to for severe pain. He generally gives castor oil in emulsion for pronounced intestinal tympany following air swallowing. Rest in bed is imperative in intestinal air accumulations, and when there is no doubt as to the real condition he prefers hot fomentations. Massage might be injurious. If there is no marked improvement, attention should be given to food, and it should be of non-fermenting character and in small quantity.

13. **Movable Kidney.**—The unusual symptoms here noted by Noble are Dietl's crisis from the torsion of the kidney on its vessels, hematuria from the same cause, a sense of dragging from the traction on the vessels and adjoining structures, presence of albumin and casts, usually hyaline casts, in the urine as the result of congestion of the kidney due to interference with its circulation. His experience does not confirm Edebohls' statement that movable kidney tends to chronic nephritis, but on *a priori* grounds this would seem probable. Illustrative cases of the different complications are given. His object in presenting the paper is to emphasize that, while the usual symptoms of movable kidney are more or less general, there are distinct local lesions which can not be disregarded.

14. **Sex Differentiation and Education.**—Howard insists on the difference in the mental qualities of the two sexes, and the bad effects of ignoring these in the popular systems of education at the present time. He is not an advocate of coeducation.

16. **Artificial Fluorescence of Living Tissue.**—Morton concludes his paper with reports of cases in which he has used a method of producing fluorescence of the internal organs by medication, he thinks, with advantage, including cases of Hodgkin's disease, carcinoma of the breast and papillomatous growths in the abdomen, etc. He thinks he has made out a fair *prima facie* case for the thorough investigation of this method of treatment.

17. **Pruritus Ani.**—Eleven cases are reported by Pennington in which the *x*-ray was employed for this distressing condition, some of which had been treated ineffectually by various specialists. He thinks the good results in these cases are worth recording. The patients had practically no internal or local treatment during the exposures, though he would not recommend the method to the exclusion of all others.

American Medicine, Philadelphia.

February 20.

18 *The Life Cycle of Ameba Coli in the Human Body: A Preliminary Note. Charles F. Craig.
19 *Medical Treatment of Diabetes. W. H. Thomson.
20 *The Retinal Symptoms of Vascular Degeneration. L. A. W. Alleman.
21 *Posterior Gastroenterostomy, by a Modified Maunsell's Method, with an Entero-enterostomy by the Hartley Method. W. L. Wallace.
22 Roentgen Ray Treatment of Diabetes. Clarence E. Coon.
23 Hour-glass Contraction of the Uterus. Charles F. Beeson.

18. **The Ameba Coli.**—Craig finds in the amebæ, stained by the modified Wright's method, some chromatin patches which appeared to him to be spores. He believes that the *Ameba coli* undergoes reproduction by sporulation, and that this most adequately explains the persistence of the ameba infection. If these sporulated patches were encysted it would still better explain the persistence of such infection. He reviews the different points which have been urged for differentiating the *Ameba coli* from other amebæ, such as its size. He can not himself confirm the observation that the large size is the ameba of dysentery. Some authors have endeavored to classify these organisms by their phagocytic action. He thinks this is a very unlikely point on which to base a classification. The occurrence of amebæ in apparently healthy intestines has been used as an argument for the existence of pathogenic and non-pathogenic varieties. Craig holds that this claim is absurd, as other parasites are also found without producing their pathogenic infection. That amebæ are present in healthy individuals may imply a loss of virulence on their part or immunity on the part of the bearer. As far as he has been able to observe, such amebæ occurring in the apparently healthy intestines are identical with those occurring in dysentery. He thinks any attempt to classify the pathogenic and non-pathogenic forms will lead to confusion and be of no advantage.

19. **Diabetes.**—Thomson would class any glycosuria lasting more than a year as diabetes and as a serious disorder. For medicinal treatment he would throw out purely functional remedies such as opium, that is, those that do not affect structure, and employ others that do. Among the latter he mentions cod liver oil, which he finds diminishes the sugar and the excess of urea eliminated when it is taken freely and is well borne. Next to this he would mention iron. He tries to give diabetics all the iron they can take, together with all the fresh air they can get. To avoid constipation he would use the old-fashioned Hooper's pills, of which he gives the formula. He would also use drugs falling in the class of so-called medicinal antiseptics, among which he includes arsenic. Other drugs used are sodium benzoate, bismuth salicylate, etc. Alkalies in the form of mineral waters hold a deserved place in the treatment of diabetes, but it should be remembered that their continued use tends to a wasting of flesh, and hence they should not be given to any one losing flesh. In case of diabetic coma, he calls on the most trustworthy diuretic that we have, namely, prolonged intestinal irrigation with normal saline solution.

20. **The Retinal Symptoms of Vascular Degeneration.**—Alleman finds from a study of cases a certain number of fundal appearances which indicate vascular degeneration. In the first class the only thing is a tortuosity of the smaller retinal vessels. In the second class the same condition with more or less bending at the crossings is observed. In the third group some evidence of organic change in the vascular walls can be made out. The curve at the crossings is more pronounced, and a slight haze can be made out on either side of the red line of the upper vessel. He includes in the fourth class all cases presenting advanced vascular disease, such as hemorrhagic, albuminuric and diabetic retinitis. The physical signs which are the first evidence of disturbed nutrition are due to a higher peripheral tension associated with improper elimination, entailing simple tortuosity of the smaller vessels. There may be with this a general lassitude, headache, vague nervous symptoms, etc., and urinary examinations show a diminution in the elimination of urea. As to whether this is an important factor, he is not sure, though it may be a fair guide. In the second group there is spastic contraction of the retinal vessels, which may accompany hemicranias and neuralgias. The patient's general condition may vary from perfect health to nervous prostration, and the urinary findings differ but slightly from those in Class 1. In the third group there is generally some discoverable evidence of vascular degeneration; the radials offer a little more than the normal resistance, and there is frequently a discoverable cardiac hypertrophy. He tabulates a large number of illustrative cases in which the urinalysis and retinal findings are both given. He thinks the field of observation is a wide one and should be cultivated.

21. **Posterior Gastro-enterostomy.**—The steps of the operation employed by Wallace are given with illustrations as follows:

1. The abdomen was opened and the usual investigation made.

Posterior gastroenterostomy necessitates pushing the jejunum through the transverse mesocolon and uniting it to the posterior wall of the stomach.

2. The transverse colon with great omentum was pulled up and an opening torn through the transverse mesocolon, exposing posterior wall of the stomach.

3. The jejunum, about 8 or 10 inches from its beginning, was picked up and the funis clamp was placed on its antimesenteric border with the long axis of the clamp in the long axis of the gut, pulling the bowel well through the clamp, so as to grasp about 2 inches by ½ inch. A pair of artery forceps was snapped on the funis clamp to serve as a handle in further manipulations, and to make it impossible for the funis clamp to come open.

4. The clamped bowel was pushed forward through the opening in the mesocolon and against the posterior wall of the stomach, crowding the stomach far out of the abdominal incision, where it appeared as a dome, through the double wall of which the clamp could easily be felt.

5. A 2-inch vertical incision was made through the anterior wall of the stomach, and the clamped bowel was pushed through this opening, invaginating the posterior wall of the stomach before it.

6. The posterior wall of the stomach was cut transversely, letting the clamp push through, and hatpins were passed under the clamp through the posterior wall of the stomach and the intestine, holding their serous surfaces securely together, and allowing them to be drawn far out, invaginated through the opening in the anterior wall of the stomach.

7. The forceps holding the funis clamp were taken off, the bowel opened by cutting under the funis clamp, and the edges of the intestine and the posterior wall of the stomach were overcast with fine silk, as in Maunsell's operation.

8. The hatpins were pulled out. Half of a Murphy button was dropped into each arm of the intestine, and then the posterior wall of the stomach, with the intestine anastomosed, was allowed to drop back through the opening in the anterior wall of the stomach, and the opening in the anterior wall of the stomach was then closed.

9. The anastomosis was examined from beneath the transverse mesocolon and the halves of the Murphy button were pushed together, cutting over their cylinders (Hartley method) and the abdomen was closed without a drain.

The method, he thinks, is rapid and safe, and the bowel can be clamped and pushed through the transverse mesocolon and passed up through both walls of the stomach quicker than the process can be described. The parts are so securely held that *to overcast the edges after the Maunsell method requires a* few seconds only. In the case reported the method was entirely satisfactory.

Boston Medical and Surgical Journal.

February 11.

24 *Remarks on Cholecystectomy and Cholecystostomy, with Special Reference to Their Comparative Safety and Efficiency in the Treatment of Biliary Affections. Maurice H. Richardson.
25 *Cholecystostomy and Cholecystectomy. A Study of a Certain Series of Operations. Charles L. Scudder.

24. **Cholecystectomy and Cholecystostomy.**—Richardson discusses the two operations, cholecystectomy and cholecystostomy, as compared with each other in respect to danger, efficacy in the prevention of recurrence of gallstones, advantages of drainage and the future possibilities and difficulties of each. As regards the danger, he thinks cholecystostomy is the safest, but the dangers are not excessive in either operation. The removal of a comparatively normal gall bladder in experienced hands probably does not add materially to the risk. In very decidedly abnormal gall bladders, such, for instance, as an adherent, friable, thickened septic organ, with presumably a thickened, strictured duct, the condition is more formidable and the difficulties of drainage may be much greater. When the gall bladder is thickened and contracted, when its fundus is far removed from the abdominal wall, the difficulties of drainage, on the other hand, may be greater than those of extirpation. Drainage is also often desirable, even if extirpation of the bladder is advisable. As regards the prevention of gallstones, he thinks they seldom if ever recur excepting in the gall bladder, but recurrence in his observation is rare. As regards the liability to re-formation, the facts favor cholecystectomy rather than cholecystostomy, but the weight of this argument is light. Drainage of the biliary passages is the one great benefit to be gained by operation. He thinks the escape of bile from the wound for two or three weeks does more good than anything else connected with the operation, and any method that fails to provide this fails in an important element of permanent success. It is true that drainage of the biliary passages may be effected after the removal of the gall bladder, through the cystic, common or hepatic ducts, but the operation is not as easy or safe as might be anticipated. To hunt for the hepatic duct after the isolation of the gall bladder and cystic duct is no small operation in itself, and the cystic duct is sometimes so small that it will not admit anything but the smallest probe and the valves prevent its introduction. The hepatic duct, unless dilated by obstruction below, is too small for the introduction of anything but the smallest tubes and it requires a long incision to find it. It will take a good deal, he thinks, to convince him of the wisdom of drainage in these ducts as against so safe and efficient a method as cholecystostomy. Under certain conditions, drainage through the hepatic duct must be used, no matter what the operation is, when drainage through the gall bladder has been ineffectual or unduly difficult, and in gallstone impactions of the common duct hepatic drainage is, of course, essential. If drainage is essential in gall-bladder surgery, cholecystectomy should never be performed in a comparatively normal gall bladder. When the gall bladder is abnormal—infected, contracted—it should be removed for reasons connected with its own pathologic condition. Yet he has been surprised to see how many deeply infected gall bladders have healed after cholecystostomy. He can not escape the conclusion that cholecystectomy without drainage is an incomplete and dangerous operation, and that biliary drainage through anything but the gall bladder is attended by grave risks of remote trouble. The great difficulty of secondary operations on the biliary passages, especially drainage after cholecystectomy, has been frequently impressed on him. The most important objection to extirpation of the gall bladder, when the cystic duct is ligated, is the loss of the benefits which follow prolonged drainage. The complications that occur after extirpation of the gall bladder have been due to interference with the drainage. Unless it should appear that total obliteration of the organ diminishes rather than increases post-operative complications cholecystectomy must remain the operation of necessity rather than of choice.

25. **Cholecystostomy and Cholecystectomy.**—Scudder's article is an analysis of 16 cases which are reported in detail. He formulates his opinion as regards the two procedures in brief as follows: Cholecystostomy should be done in cases of gall bladder and bile-duct surgery when quick drainage is needed for the deeper ducts and when the surgeon is not absolutely sure that the deep ducts are entirely free. Cholecystectomy should be done in cases of acute cholecystitis, in cases of cholecystitis resulting in grangrene and empyema of the gall bladder, in small contracted and infected gall bladders which are functionally useless and will not be of service in facilitating drainage, and in all cases in which the surgeon is sure that the deeper ducts are unobstructed.

Cincinnati Lancet-Clinic.

February 20.

26 *Cataphoresis, with Special Reference to Its Value in the Treatment of Malignant Disease. F. O. Marsh.
27 Ductus Pancreaticus (Ductus Hofmanii Wirsungii). Byron Robinson.
28 *Hypodermatic Medication in Italy. Charles A. L. Reed.

26. **Cataphoresis.**—Marsh describes the methods of cataphoresis, mercuric and zinc, asserting that experimental tests tend to establish the claim that cataphoresis offers unique and special advantages for the destruction and disinfection of morbid and malignant growths *in situ*. It has, he thinks, in many cases advantages over removal *en masse* by the knife, curette or actual cautery. Except in superficial growths, its action is quicker and more penetrating than the *x*-rays, but to obtain the proper results application must be made through the action of a powerful current somewhat prolonged, and used under anesthesia. It is, of course, powerless against anything but local conditions, but here, however, the ultimate results, as obtained by Massey in over 60 unselected cases of malignant disease, seem to be far superior to those of cutting operations.

28. **Hypodermic Medication in Italy.**—Reed calls attention to the greater employment of hypodermic medication in Italy, as observed by himself during a recent vacation spent in Italy. In that country the method is employed not only for the ordinary remedies thus used elsewhere, such as morphin, strychnin, etc., but for iron, arsenic, mercury, phenic acid and a long list of other remedies generally administered by the stomach. The essential feature seems to be in the method of preparation of the remedies. Whether simple or compound, they are put up in solution, carefully sterilized and kept in glass tubes, blown shut, each tube with a capacity of a cubic centimeter, containing a single dose. When administered, the slender neck of the tube is broken off and the contents sucked out through a platinum needle into the syringe, and the drug administered under the skin in the usual way, the puncture and depth being determined by the character of the remedy used. Iron is probably of foremost importance thus used, and it is employed in the anemias of various kinds; also in cases where a general tonic or iron treatment is required for other reasons. Other remedies mentioned are iodin, mercury, etc., and among the more unusual ones are trinitrin as a

vasodilator, paraldehyd as a sedative and hypnotic, hydrastin as a hemostatic, etc. He adds, in conclusion, that this form of medication is well worthy serious consideration.

St. Louis Medical Review.
February 20.

29 My Autobiography and Reminiscences. S. Pollak.

Atlanta Journal-Record of Medicine.
February.

30 Address, Atlanta Society of Medicine. Alex. W. Stirling.
31 *Some Advantages of Stapler's Rarefier in the Treatment of the Ear. Maury M. Stapler.

31. **Stapler's Rarefier.**—Stapler describes his instrument for treating aural affections. It consists of a small air pump and a tubular metal bridge from which five tubes pass, one to the air pump. The others are applied to the external meatus on each side and to the nasal orifices. The ear tubes can be held by a wire spring; the nasal tubes can be held by the patient. The mechanism of the apparatus is the inflation or the rarefication of the air in the aural passages, and the equalization or otherwise of pressure from both sides of the tympanum. He claims many advantages for it, improving the circulation and relieving abnormal conditions. A number of cases are illustrated where it has been used. Of 24 cases of congenital deaf-mutism, 10 have been made to hear and talk, and 8 others still under treatment have a practical degree of hearing and speech, and can use the telephone. Some of the deaf mutes were cured by one treatment. One child, deaf from measles, was cured in ten days.

The Post-Graduate, New York.
February.

32 *Gastritis. Achilles Rose.
33 Diagnosis and Treatment of Chronic Stone Impaction of the Common Duct. John J. McGrath.
34 Gall-duct Obstruction from a Medical Point of View. Thomas E. Satterthwaite.
35 Hydrotherapy, Electricity and Massage in the Treatment of Diseases of Children. Herman B. Sheffield.
36 Ductus Bilis (Biliary Ducts). Byron Robinson.

32. **Gastritis.**—Rose sums up his paper substantially in the following propositions: Gastric catarrh is an impossibility, and erosions of the stomach in most instances are of no clinical importance. Washing out the stomach has been overdone. Olive oil introduced into the stomach has proven of great value in pyloric stenosis. Chronic gastritis is often associated with gastric atony, and symptoms are attributed to gastritis which are sometimes in reality symptoms of gastroptosia. With pronounced gastroptosia and nervous symptoms, the former condition should be first relieved. There is no gastritis produced by mold without gastroptosia. Atonic gastritis deserves more attention than it has received. Symptoms attributed to gastric neurosis are in many cases caused by atonia gastrica.

Denver Medical Times.
February.

37 *Intubation of the Larynx and Intubation Instruments. F. E. Waxham.
38 Tunica Muscularis Ureteris. Byron Robinson.
39 Remarks on Salt. W. B. Parsons.
40 Typhoid Gangrene of the Lower Extremities. One Hundred and Thirty-four Cases. Spontaneous and Surgical Amputations (and Historical Résumé). Merrill Ricketts.

37. **Intubation.**—Waxham describes the instruments used in intubation and discusses their limitations. He speaks strongly in favor of the original O'Dwyer tube as being in every way the best fitted, and criticises all modifications that have been made on it. There are many instruments in use on the market, poorly constructed and devised, that should be condemned. Intubation is a difficult operation, requires special training and the best apparatus. It will meet with best results with early and repeated use of antitoxin.

Chicago Medical Recorder.
February 15.

41 Factors that Influence Pneumonia. W. K. Jaques.
42 *Dietetics in the Treatment of Bright's Disease. Arthur R. Elliott.
43 Mistakes of Moses. D. R. Stockley.
44 *Some Chicago Orthopedic Geography. Frederick C. Test.
45 Suprapubic Incision as a Means of Locating the Perineal Urethra. Howard Crutcher.
46 *Dysmenorrhea in Nullipara. Mary G. McEwen.
47 Some Clinical Observations on Cough. Sherman E. Wright.
48 A Painless, Bloodless Cure for Ingrown Toe Nails. Anton A. Frank.

42.—See abstract in THE JOURNAL of January 30, p. 329.

44. **Orthopedic Geography.**—Test analyzes the statistics of orthopedic cases in the dispensaries of Chicago, describing also the physical conditions, and concludes that rickety and tuberculous cases each constitute about one-third of the orthopedic cases presented at the Chicago dispensaries. Rickety deformities are commoner in foreigners, especially those from warm countries, living in close quarters. Tubercular deformities are more common in the Anglo-Saxon and foreigners from cold climates. In the region of the Stock Yards, joint tuberculosis constituted 40 per cent. of all deformities, against less than 30 per cent. for other parts of the city. This he attributes to the infection from the great number of tuberculous animals in the Stock Yards. Congenital deformities appear to be commoner in the more highly civilized peoples. These results are based, of course, on a partial study of the cases in Chicago, but he thinks the general results would be the same with more extended study.

46. **Dysmenorrhea in Nulliparae.**—Several illustrative cases are reported by McEwen, who concludes that the condition is due to an undeveloped uterus and more or less local stenosis. The poor drainage and venous stasis ultimately set up an endometritis. This produces a spasm of the sphincter of the internal os, causing the retention of blood in clots which are expelled by labor-like contractions. The heavy, anteflexed fundus causes vesical irritation. Ovaritis is of later development by the extension of the inflammation. Thorough dilatation and curettage should be done in all cases where improvement of the general health does not relieve the patient. In severe cases, further repeated dilatation with the Palmer dilator, or the wearing of an intra-uterine stem is required to permanently relieve the patient. Douching and depleting tampons are practically useless for the uterine condition, but are valuable if the ovaries are enlarged and painful. There is no tendency to spontaneous cure in most cases, and early treatment is advisable. The fact that pregnancy is Nature's cure for the undeveloped uterus should not cause the postponement of the relief afforded by simple operative treatment. These cases, in fact, are usually sterile and require dilatation and curettage to cure the endometritis before they will become pregnant.

American Journal of the Medical Sciences, Philadelphia.
February.

49 *Gastroenterostomy. John B. Deaver.
50 *Nervous Complications and Sequelæ of Smallpox. Charles J. Aldrich.
51 Case of Typhoid Fever Presenting an Arterial Complication—Probably an Arteritis. Walter R. Steiner.
52 Occurrence of Cells with Eosinophile Granulation and Their Relation to Nutrition. Eugene L. Opie.
53 Case of Seborrhea Nigricans (Black Mask of the Face). Arthur Van Harlingen.
54 Report of Two Cases of Ectopic Gestation and a Case of Intestinal Obstruction Due to Meckel's Diverticulum. Harold H. Heyer and H. M. Lee.
55 Ludwig's Angina. Report of a Case. Gwilym G. Davis.
56 Fatal Case of Poisoning with Oil of Gaultheria. J. Woods Price and Edward M. L'Engle.
57 *Significance of Urinalysis in Pregnancy, with Especial Reference to Eclampsia. Robert N. Willson.
58 New Method of Gastric Proteolysis. A. L. Benedict.
59 Thrombosis of the Midcerebral Artery Causing Aphasia and Hemiplegia. Charles W. Burr and G. E. Pfahler.
60 Report of a Case of Tumor of the Brain, an Endothelioma of the Dura; Operation; Recovery; Death in 108 Days from Recurrence of the Disease. William J. Taylor.
61 Report of Five Cases of Tumor of the Brain, with Operation. William G. Spiller.
62 *Discussion on the Surgery of Tumors of the Brain, with a Résumé of the Operative Records of Four Craniotomies. Charles H. Frazier.

49. **Gastro-enterostomy.**—Deaver reviews the conditions calling for gastro-enterostomy, including malignant disorder, bleeding from acute or chronic ulcer, marked inflammation associated with ulcerations and the contractions which they produce, extensive dilatation due to strictures, and fistulas between the biliary tract and the stomach with adhesions, intractable cases of chronic gastritis with multiple erosions at the pyloric region, hemorrhage, Reichman's disease in which the irritation of the highly acid gastric juice causes erosion of the pylorus and fissures—gastro-enterostomy places the organ

at rest—tetany, as suggested by Weir, and acute dilatation where lavage has failed, as suggested by Mayo Robson. Of the various operations he speaks favorably of the posterior method and also of Roux's operation, which he says seems to offer many advantages. He has not used the elastic ligature or Connell suture nor does he use clamps. Fowler's method of entero-enterostomy for the prevention of a vicious circle is mentioned, but Deaver does not consider that it should be done in every instance. He thinks simple posterior gastrojejunostomy is more rapid, safer and perfectly efficacious in the great majority of cases. His future method, he says, will be to perform the posterior method of anastomosis or the Roux Y operation, and in the event of vomiting following the former method, he will reoperate, divide the afferent limb just below the stomach and implant it, as in the Roux Y, into the efferent limb, some 10 or 15 cm. below the stomach, closing the shallow sac above close to the anastomotic opening. The after-treatment of gastro-enterostomy is of the greatest importance. Shock, vomiting and pneumonia should be guarded against. He uses the hot-water bed, hot bottles and a cotton jacket during the operation, with the greatest care in anesthesia. In shock, before all other remedies he uses saline solution by the bowel, at first combined with whiskey, and later intravenously, if the patient's condition demands it. Vomiting is dreaded, and while he usually allows liquid food eighteen hours after the operation, any nausea is an indication for its discontinuance and substitution of rectal feeding. For the vomiting, the best treatment is gastric lavage, using small quantities of water at a time, and giving absolutely nothing by the mouth. He thinks careful suturing is a better safeguard against peritonitis than any mechanical appliance.

50. The Nervous Complications of Smallpox.—Aldrich's article is largely a review of the literature. He thinks we have as a complication or sequel of smallpox a disseminated encephalomyelitis which possesses clinical features and pathologic changes entitling it to be considered as a distinct entity, and that it is sufficiently frequent to demand a special study. It also occurs with other infectious diseases. Of the 15 cases that he has found in the literature all presented more or less ataxia in the four extremities, most marked in the legs, slowness and awkwardness of movement, slow, monotonous, explosive speech, faulty articulation, varying degree of mental degradation and a decided tendency toward recovery. Several cases are reported.

57. Urinalysis in Pregnancy.—The relation of the condition of the urine to puerperal eclampsia is the subject of Willson's article. In answer to the question whether eclampsia can be guarded against by careful attention to the condition of the urine, he thinks the following conclusions are warranted:

> 1. Careful urinalyses should be carried out in all cases of pregnancy at frequent intervals, and with increased frequency as term is approached. 2. The most dependable indications of impaired renal function and of probable eclampsia have been shown by general experience to be the presence of decided quantities of serum albumin, the diminution of the eliminated urea, and the presence of a microscopic renal sediment (*casts, renal epithelium, blood,* etc.). The character of the latter, when accompanied by the well-known clinical signs of nephritis, always constitutes a working basis for an estimate of the probability of imminent danger. 3. Even if the urine appear perfectly normal the possibility of eclampsia must be considered, especially in young women. Eclampsia in such cases is of equal severity with that of cases in which the urine has given due warning of impaired renal functions. 4. When eclampsia supervenes on labor in a subject with previously (apparently) healthy kidneys, the tendency subsequently is toward a return to normal renal functions if the patient survives. This circumstance would seem to indicate still more strongly that the kidneys may actually have been normal up to the time of a temporary embarrassment and suspension of function. 5. Until the nature and ultimate cause of uremia and eclampsia are more thoroughly understood, it would appear that urinalysis, though not an unerring guide, is our most favorable index of the condition of the kidneys and our most trustworthy source of information as to danger from such forms of toxemia. 6. The prognosis seems to be vastly improved if eclampsia be combated by generous bleeding, followed by venous transfusion with normal salt solution. These measures reduce and dilute the poison in the circulation, and relieve the cardiac distress. Free diaphoresis and purging are, of course, indicated.

62. Tumors of the Brain.—Frazier's article concludes with a summary of the operative records of cases reported. He sums up, in brief, as follows: 1. The prophylaxis of shock should be specially cared for. This best reduces the mortality. The most important measures are the avoidance of prolonged operation, excessive hemorrhage and unnecessary rough manipulation of brain substance. 2. A given area of brain can be exposed with the least minimum degree of trauma and greatest economy of time by the electric engine. 3. Temporary closure of the carotids in operations on the brain is ineffectual and not entirely safe. It should be reserved for extreme cases and used only on one side. 4. Blood pressure observations should be made immediately before and at varying intervals during the operation. They furnish the most reliable index of the patient's condition, and the only exact method of determining whether the operation should be carried on or not in two stages. 5. Two-stage operation is indicated where there has been a decided fall of blood pressure after relief from intracranial tension, such as follows reflection of the Wagner flap and dura. 6. Lumbar puncture to relieve pressure is a temporary and not altogether safe procedure. 7. Bulging of the brain is one of the most embarrassing things in cerebral operations. A distinction may be made between that following reflection of the dura, "initial" bulging, and that following subsequent exploratory manipulation, "consecutive" bulging. 8. "Initial" bulging is always due to the increased tension exerted by the tumor. It is not always present and often not excessive, and is not likely to be followed by "consecutive" bulging. 9. "Consecutive" bulging is due to the cerebral edema set up in the normal brain tissue by trauma. It far exceeds in magnitude the "initial" bulging, and suggests the absence of a tumor of considerable size at the seat of operation. 10. In order to avoid this "consecutive" bulging, exploration should be carried out most expeditiously. 11. When the edges of the dural wound can not be approximated without undue tension or great laceration of the brain substance, the gap should be closed by a graft taken from the pericranium, provided the tumor has not been found and the accuracy of diagnosis is questionable. 12. When there is every assurance of a tumor being present, but it proves inoperable or was imperfectly localized, no attempt should be made to close the dura, as this would counteract the best palliative effects of the operation. 13. Palliative operations should be regarded as not merely operations of propriety, but should be considered imperative when the tumor can not be found or removed. 14. A statistical study of the results of the last five years is encouraging. The mortality has been materially reduced, and recurrence after operations for malignant growths of the brain is no greater than after operations for malignant growth of other structures.

Physician and Surgeon, Detroit and Ann Arbor.

December.

63 *Report on the Results of the Use of the Elastic Ligature (McGraw) in Fifteen Cases of Gastroenterostomy. Charles B. Nancrede.
64 *Surgery of the Stomach. Cyrenus G. Darling.
65 Comments, Not for Controversy, but for Light. Ephraim Cutter.
66 The Butler Typhoid Epidemic. Guy C. Keller.

63. The McGraw Ligature.—Nancrede advocates the use of this method in gastro-enterostomy, claiming that it is simpler, safer, more quickly performed, requires less complicated instruments and is adapted to the majority of cases that require gastro-enterostomy for their relief. It is contraindicated only in cases where the matter of time is of importance and immediate communication between the stomach and intestine is demanded.

64. Surgery of the Stomach.—Nineteen cases of operations on the stomach are briefly reported by Darling, who insists on the value of operative interference in averting starvation, relieving discomfort and prolonging life. He points out the comparative safety in exploratory work, the low death rate following resection and the comparative safety of gastro-enterostomy.

Laryngoscope, St. Louis.

January.

67 *Dependence of Aural Affections on the Nose and Throat. H. E. Smyth.
68 Interesting Laryngo-pharyngeal Tumor. Henry G. Ohls.

67. Dependence of Aural Affections on the Nose and Throat.—Smyth holds that while nasal disease predisposes to oral infection there is less danger than usually thought, and that excepting in specific growths the greatest danger is from disease of the nasopharynx. Many of the ear affections accompanying nose and throat disease may be due to a general tendency, rather than to a direct extension. Nevertheless, to successfully treat aural affections it is a wise precaution to carefully examine the nose and throat and correct any pathologic conditions.

Bulletin of the Johns Hopkins Hospital, Baltimore.
January.

69 *Tuberculosis of the Urinary System in Women. Report of Thirty-five Cases. Guy L. Hunner.
70 The Second Hospital in the Colonies, the "Coole Springs of St. Maries," Maryland, 1698. J. Hall Pleasants.
71 Some Unusual Forms of Malarial Parasites. Mary E. Rowley.

69. **Tuberculosis of the Urinary System in Women.**—From a study of 35 cases in the service of Howard A. Kelly and his associates, Hunner deduces in substance the following: Urinary tuberculosis in women is a disease of early adult life. It is usually primarily in the kidney, though in about half of the cases bladder symptoms are complained of. It is confined to one side in the vast majority. If involving both sides a very painstaking examination must be made of both urines to determine whether the treatment is to be surgical or medical. The disease should be kept in mind in dealing with any symptoms referable to the urinary tract; even such ordinary occurrences as a supposed movable kidney or incontinence of urine should be carefully investigated. Appendicitis and gallstone colic must be differentiated. Any obscure or atypical cases of malaria or typhoid fever should suggest the possibility of the disease. The condition is compatible with long life and comparative health, and macroscopic and microscopic examination of the specimens showed that in some cases there is a tendency to heal spontaneously, but in spite of these facts it is preeminently a surgical disorder. The article concludes with a summarized report of cases.

Medicine, Detroit.
February.

72 *Address, National Association for the Study of Epilepsy and the Care and Treatment of Epileptics. Wharton Sinkler.
73 *Surgical Treatment of Epilepsy. J. Chalmers DaCosta.
74 *Psychologic Aspects of Epilepsy. Wm P. Spratling.
75 *Consideration of the Epileptic by the Courts John B. Chapin.
76 *Care of Epileptics in Private Practice. William N. Bullard.
77 Progress of the New Jersey State Village for Epileptics. Henry M. Weeks.
78 Diagnosis of Atypical Forms of Epilepsy. Albert C. Buckley.
79 *Blood in Epilepsy; Experiments on Animals. F. Savary Pearce and L. Napoleon Boston.
80 Spasmus Nutans. Curran Pope.

72. **Epilepsy.**—Sinkler's address covers the subject of the recent advances in the knowledge and treatment of epilepsy, especially the sanatorium treatment. It is not readily abstractable, but is well worth reading.

73. **The Surgical Treatment of Epilepsy.**—DaCosta favors the use of surgery in certain cases, though he admits its hopelessness in the majority. Uncomplicated cases of essential epilepsy should not be operated on, for operation will never cure them, but it is justifiable to relieve special symptoms such as localized headache, etc. Good results have also been claimed with excision of the cervical ganglia of the sympathetic. Kocher, on the theory of increased intracerebral pressure, advocates operation even in this type. Idiopathic epilepsy with focal symptoms, if operated on early enough, may offer some hope of relief, but after two years' continuance the hope of cure is markedly less, as the associated fibers are often hopelessly degenerated. Still, even in old cases if the attacks occur with sufficient frequency as to cause exhaustion and threaten life, the excited cortical centers should be excised. This benefits many, but saves the life of few, and it has the disadvantage of leaving a paralysis, though except as to the finer movements, this is usually temporary. When jacksonian attacks develop in idiopathic epilepsy the treatment should be the same as in dealing with partial epilepsy or focal epilepsy from the beginning. In traumatic epilepsy a careful investigation should be made. It may be merely a coincidence and there may be no localized brain damage. Every operation is an exploratory one. If a scar on the scalp is found it should be excised, as Keen has pointed out that severe irritating impulses from a scalp scar may induce epileptic attacks. With evidences of skull injury or depression, trephining is imperative and somewhat promising. When jacksonian epilepsy has followed an injury in the motor region the chances of effecting a cure are much better than when the epilepsy has followed an injury in the sensory region. When it has followed an injury in the frontal region there is very little hope of cure. He sums up the general conclusions as follows:

> Operations for epilepsy are distinctly disappointing and rarely curative, and are indicated in only a small proportion of cases. They frequently produce temporary benefit. They may save life, but they are not entirely free from danger, and occasionally leave the patient worse than before. The mortality, though small, is not inconsiderable. The actual number of complete recoveries is probably under 5 per cent. No case should be claimed to have been cured until from three to five years has elapsed since the operation. Even after operation medical treatment and supervision should be exercised for a long period of time.

74. **The Psychologic Aspects of Epilepsy.**—Spratling describes the various types of mental disturbance from slight clouding, through *feeble-mindedness, imbecility* to *idiocy* and *epileptic dementia* and *acute confusional insanity with hallucinations,* etc., and also *paroxysmal conditions.*

75. **The Epileptic Before the Courts.**—Chapin finds as a result of observation that epileptics do generally show some mental failure such as defective memory, irritability, a tendency to become suspicious and revengeful, etc., emotional, and sometimes an intensification of the moral and religious side of their nature, and that these changes become more marked during the interval between convulsions as the intervals between seizures diminish. In every medicolegal inquiry where epilepsy is suspected it is essential to establish the existence of a paroxysm, beyond a reasonable doubt, and where epilepsy is raised as a defense, and mental and moral degeneration has actually taken place, and convulsions can be proven, the defense is entitled to acquittal and to be disposed of as provided in such cases. If a person has committed a criminal act, has had epileptiform seizures in infancy or at some period has had an epileptic convulsion and the criminal act was not committed near to or succeeding the seizure, and no mental failure is shown, the best he can expect is conviction with a recommendation to mercy if the charge is proven. The convulsion is not the actual disease, but the outward manifestation of a complex psychic and psychical condition due to disease, vicious habits, traumatism or unfortunate heredity. Where convulsions appear at long intervals experience shows that mental and moral degeneracy sooner or later occurs.

76. **The Private Treatment of Epilepsy.**—Bullard says there is only one form of drug that can be generally relied on, that is, certain bromid salts. The most important thing in the general treatment is suitable regulation of the life. In the mildest cases with little or no mental impairment, it is better to continue the ordinary occupation, but regulating the brain work so as to avoid sudden mental exertion or strain and an excess of worry or anxiety. If the choice of occupation is still before the patient, he would advise such as bring the least mental exertion while affording sufficient regular occupation and healthful environment, such as farming or other outdoor occupations. The digestive functions must be looked after, and he thinks the ordinary mixed diet is suitable for the epileptic. He need not absolutely abstain from meat, but it is important to regulate the quantity of food; there should be no overeating. The teeth should be carefully looked after and mastication attended to. Anything that disagrees with the patient, of course, should not be employed. He should have as variable diet as is compatible with his digestive powers. Alcohol, as a rule, is to be avoided. Tobacco in moderate amount does not seem injurious. Tea and coffee should be limited and their action watched. The epileptic should have all the sleep ordinarily required, but napping in the daytime is to be avoided as possibly favoring attacks. Moderate, regulated physical exercise is best; excess or lack of it is harmful. Fresh air is very important and freedom from mental excitement and shock is essential. Among the bromids he favors bromid of soda, holding that it is perhaps the most satisfactory, but the bromids are only adjuncts to other treatment, such as the regulation of diet, sleep and occupation.

79. **Blood in Epilepsy.**—Pearce and Boston from the blood count of a series of 7 idiopathic epileptics conclude that there is a fairly well-marked chlorotic type of anemia in these cases. There was a leucocytosis also in all but 1 of the 7 cases. There is no conclusive evidence of a change *per se* in the cells themselves, but it is possible that a toxin may be circulating. They report at some length experiments by injecting epileptic blood into rabbits which seem to show that there was a profound toxemia set up in the animals. There was a rise in the hemoglobin and increase of leucocytes, decrease of red blood corpuscles, increase in eosinophiles and decrease of polynuclear cells. It did not produce distinct convulsions in the rabbit, but the blood changes were suggestive of a toxemia. The changes were in striking contrast to those noted in ordinary septic processes where the polynuclears increase and the eosinophiles develop rapidly.

Proceedings of the Philadelphia County Medical Society, Philadelphia.

January 30.

81 Nauheim and the Schott Treatment. A. Helena Goodwin.
82 *Operative Treatment of Malignant Disease of the Mammary Gland, Rectum, Penis and Lip. William L. Rodman.
83 *Study of 91 Cases for the Relief of Various Forms of Hernia with Their Complications. Orville Horwitz.
84 Acute Appendicitis. Leon Brinkmann.
85 Case of Resection of the Elbow, Showing Results of the Operation. Gwilym G. Davis.

82. **Cancer.**—Rodman gives the results of treatment of malignant disease of the breast, which he thinks is too optimistically considered by American physicians. Its death rate is rather larger than it has been estimated by some. He thinks it is conservative, however, at the present time to say that at least one-third of the cases ought to be cured. Malignant disease of the penis is nearly always a carcinoma, and it is a mistake, he thinks, to neglect glandular involvement in the groins whether it is apparent or not. The immediate mortality of the operation should be slight. Rectal growths on the whole are not all hopeless, especially if operated by the perineal route. *He thinks we can get a larger percentage of cures than Butlin* reports, namely, 21 per cent. Carcinoma of the lip is the most hopeful of all malignant disease. The primary mortality may be as large as Butlin estimates, but the proportion of cures reaches 53 per cent., according to his figures. Rodman believes that surgeons at the present time are curing more than one-half of their cases. The operation should be thorough, opening the submaxillary triangle whether apparently infected or not.

83. **Hernia.**—Horwitz would use general taxis for a short time followed by operation, which is not dangerous in strangulated hernia. After inflammation exists, taxis should not be performed. No one method is suitable for the radical cure of all cases; Bassini's method is best for the majority, and Bloodgood's where a large abdominal ring and weakened conjoined tendon exist. Palliative operation is applicable to many selected cases of reducible hernia where protrusion can not be kept in by a truss, and also in some forms of incarcerated hernia. Radical cure may be safely attempted on both rather old and young patients. The truss should be worn after the palliative operation. Where no routine method can be employed the surgeon should do the best he can to remove the neck of the sac on a level with the parietal peritoneum, and if possible firmly close the opening after removal of the sac; he should obliterate the depression of the peritoneum in the vicinity of the internal abdominal ring, bringing the structures in apposition and closing the aperture through which the hernia protrudes. An aseptic result with primary union is essential for the success of radical operations. In case of undescended testicle every effort should be made to save and transplant the organ. For umbilical hernia, Mayo's operation is probably the most satisfactory. Absorbable sutures are preferable to non-absorbable material in hernia operations.

Virginia Medical Semi-Monthly, Richmond.

February 12.

86 Intestinal Obstruction from Meckel's Diverticulum. Stuart McGuire.
87 Dangers of the X-ray Operator. John T. Pitkin.
88 Some Thoughts on the Functions of the Nervous System and the Importance of Organic Education. G. W. Drake.
89 An Accidental Cure of a Case of Papilloma of the Bladder. Orville Horwitz.
90 Recovery After Numerous Fractures, Lacerations, etc. L. E. Fuller.

American Practitioner and News, Louisville.

January 15.

91 The Management of the Insane and How to Minimize Casualties. T. P. Satterthwaite.
92 [illegible]. Hugh Boyd.
93 [illegible] of Infectious and Contagious Diseases.

Northwestern Lancet, Minneapolis.

February 15.

94 Diseases of the Prostate, with Especial Reference to Hypertrophy of the Organ. George G. Eitel.
95 Perineal Prostatectomy. J. W. Andrews.

Medical Fortnightly, St. Louis.

February 10.

96 Myocarditis. L. C. Taylor.
97 Retro-peritoneal Abscess. Francis Reder.
98 Dislocation of the Left Hip of Three Months' Standing—Bloody Reduction with Resection of the Head of the Femur. A. H. Meisenbach.

Medical Age, Detroit.

February 10.

99 Treatment of Typhoid Fever in Children—Report of Some Cases of Interest During the Typhoid Epidemic at Butler, Pa. Benj. H. Brewster.
100 Growing Importance of the Possibility of the Dislocation of the Human Viscera. T. M. Hammer.
101 Tuberculosis Cutis. G. P. Edwards.

Merck's Archives, New York.

February.

102 Relationship of Chemical Structure to Pharmacologic Action Frank S. Meara.
103 Index of Diseases Alphabetically Arranged with Their Modern Treatment. (Continued.) G. Bjorkman.
104 Drug Treatment of Pulmonary Tuberculosis. H. E. Stroud.

Bulletin of the Kentucky State Medical Association, Louisville.

February.

105 Early Operation for Appendicitis, from a Pathologic Standpoint, Verified. J. G. Carpenter.

Fort Wayne Medical Journal-Magazine.

January.

106 Impotency. J. L. Gilbert.
107 Best Methods in the Treatment of Tuberculosis. Wm. A. Dickey.

Interstate Medical Journal, St. Louis.

February.

108 What Value Has the Knowledge of Pseudo-hermaphroditism for the Practitioner? Franz von Neugebauer.
109 Operative Treatment of Rigid Flatfoot—Report of a Case, Removal of the Scaphoid. Nathaniel Allison.
110 Pneumococcic Infection of the Respiratory Tract—a Contribution to the Etiology of "Colds." John Zahorsky.

Canadian Practitioner and Review, Toronto.

February.

111 Medicolegal Autopsy. G. Silverthorn.
112 Some Views Regarding Puerperal Infection and Its Treatment from Our Present Day Viewpoint. H. Meek.
113 The Radical Cure of Hernia. A. Groves.
114 Chronic Rheumatism and Neuritis. James J. Walsh.

Pacific Medical Journal, San Francisco.

February.

115 Some Medicolegal Facts in the Practice of Hypnotism. William L. Howard.
116 Los Angeles Medically Considered. Walter Lindley.
117 The Plague of Lust. R. W. Shufeldt.
118 Libertinism and Marriage. R. W. Shufeldt.
119 Improvement in Iron Medication. Archibald Church.

Texas Medical Journal, Austin.

February.

120 Does the Germ of Yellow Fever Have Its Permanent Host in the Stegomyia Fasciata? J. P. Oliver.
121 Tonsillitis. W. N. Brooks.
122 Intestinal Obstruction from Meckel's Diverticulum. Stuart McGuire.

Memphis Medical Monthly.

February.

123 Acute [illegible] Obstruction. Jere L. Crook.
124 Some [illegible] cerning the Use of Spectacles and Eye[illegible]
125 Fundal Incidental and Cervical Unavoidable Hemorrhage. J. L. Andrews.
126 Some Interesting Results in Minor Surgery. Hansford L. Farris.
127 Floating Liver; Report of a Case. W. H. Deaderick.
128 Bacteriology of Pleurisy. N. S. Ferry.
129 Pleural Complications and Sequelæ of Pneumonia. O. S. McCown.

FOREIGN.

Titles marked with an asterisk (*) are abstracted below. Clinical lectures, single case reports and trials of new drugs and artificial foods are omitted unless of exceptional general interest.

British Medical Journal, London.

February 13.

1 *Puerperal Sepsis. Peter Horrocks.
2 Fifty Consecutive Intra-abdominal Operations on the Ovaries, Fallopian Tubes and Broad Ligaments. James Swain.
3 Remarks on Five Successful Hysterectomies for Fibroid Disease in One Family. J. MacPherson Lawrie.
4 Ovaro Hysterectomy (Porro). T. H. Sweeny.
5 A Note on Porro's Operation and a Suggested Modification. William H. Horrocks.
6 Case of Vesicular Mole of Unusual Size. Thomas S. Jones.
7 *Some Deceptive Abdominal Conditions and the Question of Operation. A. H. Tubby.

1. **Puerperal Sepsis.**—Under this head Horrocks includes puerperal sepsis of the malignant type, puerperal sapremia, pelvic cellulitis, peritonitis, pyemia, phlegmasia dolens and milk fever. The first is the most important and serious, though some of the others may occasionally be fatal. Horrocks names as causes contagion from other similar cases, erysipelas, the handling of dead bodies, suppurating disorders, etc. He believes that some cases occur through no fault of the physician, nurse or other person, but there must be some infection, nevertheless. Meddlesome midwifery of all kinds is objected to. He does not even use the binder, and thinks it is the best plan for the obstetrician to use an india-rubber glove in making his examinations and manipulations. Vulvitis, urethritis or vaginitis, specific or otherwise, should be attended to before labor, if possible. If the labor is already in process when such a condition is found, the physician should do his best by copious syringing before the child is born to wash away as much infectious secretion as possible. Perfect asepsis of the vaginal walls is, of course, impossible, but many of the microbes can be put out of activity. The question arises in sepsis whether it is a sapremia or septicemia, and if there is plenty of milk secretion and lochia, and if the latter is offensive, it is probably sapremia. In such cases it is best to give an anesthetic and remove from the interior of the uterus with a disinfected finger any piece of placenta, membrane or clot or decomposing matter and to follow this by an antiseptic douche. Many cases will improve without this digital exploration, but others require it. If the milk is getting scanty or suppressed and the lochia, too, are diminished or suppressed, and not offensive, and the temperature is high it is probably a grave case of puerperal sepsis and the same course should be followed. He is not sure that curetting the uterus is not a good plan if done early. Antipyretics and germicidal solution to the uterus direct are suggested by some. He has had a large experience with antistreptococcic serum. In some cases it seemed to act wonderfully well, but it fails so often that it is unsatisfactory. He injects subcutaneously 20 c.c. at a time in the anterior surface of the body, under aseptic precautions. It should be repeated so that the patient gets 60 c.c. within the first twenty-four hours, and 20 c.c. twice a day after that. Any local wounds or injuries should be thoroughly treated. He has had no experience with hysterectomy. He thinks it may be successful if done early, but does not think it is likely to become a recognized practice. The same applies to opening the peritoneum and washing out. A physician who has a case of puerperal sepsis should discontinue his midwifery practice, although it is possible for him to thoroughly antisepticize himself, especially his hands, so that he can resume general surgical practice. He insists on the importance of avoiding examinations as much as possible and of not allowing the nurse to make any examinations. If she has already done so, syringe the vagina with a germicidal lotion.

7. **Deceptive Abdominal Conditions.**—Tubby reports nine cases in which various conditions, such as traumatic rupture of the bowels, perforations, pyosalpinx, pelvic cellulitis, etc., were present, but in which the symptoms were obscure at first. He specially remarks on the puzzling conditions in appendicitis, and on the importance of the leucocyte count as an aid to the diagnosis. Where the general symptoms are severe and the leucocyte count over 12,000 or 14,000 he would not hesitate to operate, as suppuration is possible. He thinks that the cases reported teach that many abdominal lesions are latent for a time so far as their symptoms indicate, and that they then suddenly become acute and that cases commencing acutely often subside and apparently progress favorably, but that they later break out again virulently, ending fatally, the favorable opportunity of the latent period not having been grasped. When general symptoms of suppuration are present it is sometimes impossible to show what particular organ is affected, and we have no data on which to commence our exploration. Lastly, there is the danger that if we do find the focus of suppuration we may not be able to limit it and prevent its spread. The important symptoms which we can not neglect are, first, the pulse and temperature, which may be entirely disproportionate to each other (a normal temperature with a pulse rate of 100 or over, or a subnormal temperature with a rising pulse are both abnormal conditions); second, leucocytosis; third, rigidity. Vomiting is a variable sign. If it recurs, in spite of careful feeding, it is not to be underestimated. In the later stages of abdominal disease distension is an important symptom. If it lasts for more than twenty-four to thirty-six hours and is unrelieved by treatment such as turpentine enemas, it is of grave significance. Diarrhea in the course of acute appendicitis is generally a sign of septic absorption and local tenderness is always of value as a guiding point to the site of the lesion. Hematemesis and melena persisting after injury or in association with suspected gastric or duodenal ulcer may indicate operation. The presence or absence of increasing abdominal dullness is an important factor in doubtful cases and effusion of blood beneath the abdominal walls can be taken in account, in consideration of other symptoms as above, as indicating possible laceration of the parts. When the symptoms in the beginning indicate an abdominal disorder and the patient remains ill, careful examination of the chest should be made and the detection of either a pleuritic rub or fluid in the pleural cavities may serve as an indication that mischief is going on and that exploratory operation is called for. Pleurisy and perigastric abscess and subdiaphragmatic abscess secondary to appendicitis are well known to be associated.

The Lancet, London.

February 13.

8 Case of Adams-Stokes Disease (Persistent Slow Pulse with Epileptiform Fits). Percy Kidd.
9 *Significance of the Zoological Distribution, the Nature of the Mitoses, and the Transmissibility of Cancer. E. F. Bashford and J. A. Murray.
10 *Etiology and Treatment of Suppuration of the Labyrinth. William Milligan.
11 Filaria Perstans and the Suggestion that It Belongs to the Genus Tylenchus (Bastian). George C. Low.
12 Iodid Rash in a Syphilitic Patient Resembling a Variolous Eruption. Ernest J. Hynes.
13 *Cancer in Australia: A Comparison with Other Countries, Together with a Specific Treatment for the Prevention and Arrest of the Disease. (To be continued.) G. Cooke Adams.
14 An Unusual Case of Cerebral Abscess; Bilateral Temporo-sphenoidal Abscess; Operations; Recovery. A. L. Whitehead.
15 *On Latent or Intermittent Nasal Obstruction. Mayo Collier.

9.—See editorial in this issue.

10. **Suppuration of the Labyrinth.**—Milligan describes the processes and reports cases. He lays down the following points as to the guides to operation:

> 1. In any case of suppurative middle-ear disease where well-marked nerve deafness on the affected side is accompanied by frequent attacks of vertigo and sickness and by nystagmus, either constant or intermittent, a careful search should be made for the presence of any fistulous tract leading into the labyrinth. If found such tract should be opened and explored; if not found, however, an exploratory opening through the horizontal semicircular canal or foot plate of stapes is justifiable. 2. In all cases of suspected labyrinthine disease of septic origin the vestibule should be promptly opened. 3. In cases of chronic suppurative middle-ear disease accompanied by the presence of cholesteatoma and erosion of the external labyrinthine wall free opening of the area of involvement should be effected. 4. In cases of suspected cerebellar abscess accompanied by symptoms indicative of labyrinthine involvement the operative pathway should be via the middle and internal ear to the posterior surface of the pars petrosa—in other words, through the median wall of the mastoid antrum. In this way the labyrinth is opened up, the anterior portion of the corresponding cerebellar lobe is exposed, and any extradural abscess lying on the posterior surface of the pars petrosa would at the same time be located and drained.

13. **Cancer in Australia.**—In Australia cancer seems to be excessively prevalent among the foreign born, while the native

born, according to Adams, largely escape. Thus among the Australian born the proportion of death from cancer per 100,000 is 22.6; British born, 203.1, and among those of German, French and Scandinavian birth, it is still higher. Of the foreigners in Australia the Americans seem to be least liable, though far more liable than the native born, the ratio among them being apparently about the same as it is in the United States. Of the provinces or states of the Australian Confederation, cancer seemed to be most prevalent in Victoria and least so in Western Australia. He attributes considerable of the liability to cancer to alcoholism and syphilis. He thinks the comparative immunity of the Australian born is largely due to the character of the indigenous foliage, especially the eucalyptus trees. He has never found any evidence of cancerous disease among the indigenous animals, and aboriginal Australians appear to be practically immune. The theory he ventures to offer and on which his treatment is based is stated by him as follows:

> That the origin of cancer (carcinoma and sarcoma) is not due to a bacterial, parasitic or local cause, but is to be looked for in the blood in the form of an unknown chemical constituent (which, for the purpose of description, I will call "malignic acid"), capable of gradually becoming virulent under certain bad climatic, hygienic, dietetic and social conditions of life, chiefly manifesting itself at its greatest virulence after 40 years of age, the degree of virulence and the age at which it may manifest itself being entirely dependent on the age and constitutional condition of parents at the time the "malignic acid" diathesis is transmitted and according to the mode of living, environment and exposure to the exciting causes after birth. This "malignic acid" when excited into virulence in its passage through the blood stream may attack any soft or bony tissue in any part of the body the physiologic resistance of which has been weakened by one or other of the exciting causes. It matters not whether this tissue be epithelial or connective, a matrix of detached embryonic inclusions; existing benign tumors derived from a congenital, inherited, or post-natal origin; syphilitic, scrofulous, tuberculous or lupoid lesions; ulcerations and lacerations of the cervix uteri; inflammatory deposits; old scars, burns, wounds or skin lesions excited by soot or paraffin; eczema, *ichthyosis*, or any other irritating cause. This "malignic acid" possesses the power by a process of chemical reaction of transforming any of the aforesaid weakened tissue into malignant tissue, having particular effect on debilitated epithelial and connective tissue which has been subjected to prolonged local irritation, attacking and infecting its intracellular matrix and cells. At the same time, it sets free the latter to group together in nests or to migrate through the blood and lymph channels either to escape as excretory products or to become deposited on other distant debilitated parts of the body. I am of the opinion that the various so-called intracellular and cellular inclusions which have been isolated and so fully described by [illegible] Leyden and others to be parasites, and by [illegible] as secretion depositis, are nothing more [illegible] formed remains or deposits (which also for the purpose of description I will term "malignates") of the parent intracellular matrix, some of which has been included in the cells during the process of chemical reaction.

The article is to be continued.

15. Latent Nasal Obstruction.—Under this head Collier includes those cases in which the nasal passages are free during the day, but become obstructed during the night, producing mouth breathing. The cavernous and mucous membrane of the nose becomes mechanically obstructed by the increased intravascular pressure when in the horizontal position and the turbinate bodies approach the septum on either side. The erectile tissue on the floor and lower part of the septum helps to complete the obstruction, and he finds in these cases the groove in the septum which is characteristic. This intermittent nasal obstruction plays an important part in the production and recurrence of polypi.

The Practitioner, London.

February.

16 Anti-typhoid Inoculation. (To be continued.) A. E. Wright.
17 *Two Lectures on Eczema. Arthur Whitfield.
18 Diagnosis of Incipient Consumption and the Cases Suitable for Sanatoria. C. H. Cattle.
19 Enquiry Into the Value of the X-rays in Bronchiectasis. D. Barty King.
20 Simple Metho[illegible] Gastroenterostomy and Other Abdominal [illegible] Moynihan.
21 Review of Rec[illegible]ia. Albert Carless.
22 Diseases of th[illegible] Considerations on Some Recent Wo[illegible]
23 Case of Incomp[illegible] f the Aorta; Necropsy. George R. Murray.
24 Cancer Mortality and Grouping of Cancer Cases in Chelsea. Louis Parkes.

17. Eczema.—From the facts here laid down and discussed Whitfield concludes that eczema can be caused by external irritants alone when they are sufficiently strong and act long enough. Certain skins are from birth of low resisting power and their owners are specially subject to attacks of eczema. Other skins have some gross and visible defect, such as ichthyosis or diminished or excessive secretion, which exposes them to more frequent irritation, and they therefore suffer in the same way. By repeated irritation or more frequently by a single powerful irritation, the normal skin may lose its resistance so that irritants hitherto inefficient to produce disease are successful. When once the resistance is broken down it can only be restored by prolonged rest and careful protection; while this state of acquired low resistance continues the conditions are indistinguishable from those of congenitally susceptible skins. As regards internal causes he thinks in many cases they are of equal importance, though he doubts whether any one of them is capable of calling forth an eruption in the absence of external irritation. Disorders of the alimentary tract have first rank, and he illustrates this by acne and rosacea forms. He remarks how much more frequently eczema is found in those who are overfed than those who eat too little; this is especially noted in babies. Aside from the question of dyspepsia he doubts whether any special line of diet should produce eczema as a rule. He has seen it as frequently in vegetarians as in others, and has known it to clear up under a minced beef and hot water diet. It is also important that we should not neglect the nervous system. Nervous shock or strain may produce it, also eyestrain, and it is perhaps a question whether the inveterate form of eczema that alternates with spasmodic asthma can not be put under this head. Lastly he mentions the lymphatic cases who are specially liable to such eruptions.

Annales des Mal. Génito-urinaires, Paris.

Last indexed page 562.

25 (XXI, No. 18.) Cas de néphrite unilatérale chronique guérie par la capsulectomie. M. Patel and P. Cavaillon.
26 *De la dilatation electrolytique de l'urètre. E. Desnos.
27 (No. 19.) Etude des tumeurs à fibres musculaires lisses de la vessie (tumors of unstriped muscle fibers in bladder). R. Cassanello (Pisa).
28 Technique des injections urétrales. C. Engelbreth (Copenhagen).
29 (No. 20.) *De la spermato-cystite aigue. H. Wildbolz (Jadassohn's clinic, Berne).
30 *Traitement des urétrites à gonocoques par la methóde dite de Janet. F. P. Guiard.
31 (No. 21.) Etude des abcès périnéaux et des phlegmons diffus d'origine uréthrale. B. Motz and J. M. Bartrina. Eighteen cuts.
32 (No. 22.) *Le chloroforme et l'appareil urinaire. F. Guyon.
33 Quelques cas de prostatite subaigue avec suppuration périprostatique et abcès rétro-cervico-vésiculaires. Bréchot.
34 Report of French Congress of Urology. (Commenced in No. 21.)
35 (No. 23.) Both Kidneys on Same Side. F. Cathelin.—Le rein ectopique croisé.
36 New Apparatus for Sterilizing Rubber Sounds. N. A. Miskhailoff (St. Petersburg).—Nouvel aparat pour la sterilisation des sondes en gomme. Illustrated.
37 *La methode épidurale dans les incontinences d'urine sans lésions vésicales. Masmonteil.

26. Electrolytic Dilatation of Urethra.—Analysis of the 25 cases reported by Desnos shows that electrolysis is not destined to supplant the ordinary methods of treating urethral strictures, but frequently proves an invaluable supplementary procedure. It renders permanent the results obtained with other methods and in occasional cases may be effectively substituted for them. In 16 patients the strictures had recurred after other treatments, but the electrolysis finally restored practically normal conditions. It is absolutely harmless and reduced the relics of peri-urethritis and urethritis, curing them completely in two-thirds of the cases.

29. Acute Spermato-Cystitis.—The possibility that an abscess in the seminal vesicle may perforate into the bladder is confirmed by the case described by Wildbolz.

30. The Janet Method of Treating Gonorrheal Urethritis.—Guiard is convinced that irrigation with potassium permanganate is a marvelously effective treatment of this condition during the first three days. Applied later than this, it is tedious, irritating and even dangerous. The strength to be used should be determined by the reaction of the mucosa in painfulness and secretions, the aim being to avoid such reaction. He warns against using more than 500 gm. of fluid for one irrigation, and mentions that cocain beforehand, by suppressing contraction of the sphincter, much facilitates the irrigation. The fluid should be at a temperature of about 40 C. The irrigations should be made twice a day the first four days and then once a day for four days, unless the gonococci reappear, when two injections a day should be resumed. He prefers a syringe to any other apparatus for the injections.

32. **Chloroform and Urinary Apparatus.**—Guyon does not regard kidney disease as a contraindication to chloroform. The kidneys are more or less quiescent during chloroform anesthesia, and it is eliminated almost entirely in the exhalations.

37. **Epidural Treatment of Incontinence.**—Masmonteil's experience indicates that a cure may be counted on when the primary cause of incontinence of urine in children is atony of the neck of the bladder. When due to cystocele or traumatism the results are less marked. There is first a reawakening of sensation during the day, then recuperation of the tonicity of the sphincter and then gradual subsidence of the pollakiuria. Six out of 10 children were promptly and permanently cured. In 3 cases of incontinence with general paralysis, 1 of tabes and 1 of debility, the results showed that the effect of the injections is felt exclusively by the sphincter. He followed Cathelin's technic, described in The Journal, xli, page 287.

Archiv f. klinische Chirurgie, Berlin.

Last indexed page 133.

38 (LXXII, No. 1.) *The Newer Methods of Investigation and Results of Operation in Kidney Affections. H. Kümmell (Hamburg).—Die neueren Untersuchungen, etc.
39 *Circular Union of Blood Vessels with Absorbable Protheses. E. Payr (Graz).—Zur Frage der cirkulären Vereinigung von Blutgefässen mit resorbierbaren Prothesen.
40 Zur Kenntnis der Chondrome und anderer seltener Geschwülste der Gelenke O. Langemak (Rostock).
41 Ueber Myositis ossificans traumatica (Reit und Exercierknochen). Haga and Fujimura (Japan). Five cases.
42 Eine [illegible] unteren vorderen Tibia-Ranc [illegible] nke.
43 Ueber [illegible] des Trochanter minor. C. Julliard.
44 Ueber Heilung der Jackson'scher Epilepsie durch Operation. Schulze-Berge.
45 Zur weiteren Differenzierung der Gangrene foudroyante. R. Kropac (Prague).
46 Ueber die Cysten der Milz und über ihre Behandlung speziell durch Splenektomie. G. Heinricius.
47 *Ueber rezidivierende retroperitoneale. Lipome. Ibid.
48 Diagnostic Mistakes with X-Rays. F. A. Suter (Geneva).—Diagnostische Irrthümer bei Durchleuchtung mit Röntgenstrahlen nebst Beitrag zur Kenntnis der Fibula-Frakturen.
49 *Vagus und Peritonitis. G. Friedländer (Berlin).
50 *Neue Methode zur Radikal-Behandlung der Hernia cruralis. F. Cavazzani (Parma).

38. **Operative Kidney Affections.**—In Kümmell's experience at Hamburg the mortality in operative cases of kidney affections has dropped from 28 per cent. (in 168 cases), to 8 per cent. (in 98 cases), since the introduction of the new functional tests. As the operation was undertaken in one case counter to the testimony of the tests, the mortality in reality should be regarded as only 4.8 per cent. His material is reviewed in detail.

39. **Absorbable Prothesis for Union of Blood Vessels.**—Payr states that his method of magnesium prothesis in operating on blood vessels has given excellent results in the hands of Exner, Ullmann, Hoepfner and others. Those who have not found it satisfactory did not adhere strictly to his directions. He advocates it as simple, certain and free from technical difficulties. Cuts are given of vessels thus united, showing perfect restoration of the lumen after the use and absorption of the magnesium cylinders.

47. **Recurring Retroperitoneal Lipomata.**—In Heinricius' practice at Helsingfors he has observed two cases of this condition. The tumors originated in the retrocecal adipose tissue and reached enormous dimensions. One patient succumbed after partial extirpation of the second recurrence. The other is well at present after extirpation of the first recurrence. He appends the literature on the subject.

49. **Vagus and Peritonitis.**—Friedländer comments on the fact now established that the local alterations are not the sole cause of the collapse in peritonitis. He has been studying the subject on cats, applying stimuli to the vagus, sympathetic and the medulla, etc. His experiments reveal some of the laws governing the complex phenomena observed, especially the disproportion between pulse and temperature. The sympathetic, he finds, is the medium of the pains, while the vagus is responsible for the behavior of the heart and its blood vessels. He explains in detail the important part played by the vagus in peritonitic collapse. He thinks that the pulse shows when the inflammatory process has invaded the loose cellular tissue containing the nerves, thus showing that the entire peritoneum is becoming involved.

50. **New Method of Treating Femoral Hernia.**—Cavazzani passes two threads through the upper corner of the obturator foramen and through Poupart's ligament. This enables him to draw the ligament over against the horizontal ramus of the pubis. This technic proved admirably adapted for its purpose in the three cases in which he has applied it, as shown in the cuts.

Centralblatt f. Bakteriologie, Jena.

Last indexed page 621.

51 (XXXV, No. 1.) Ueber Enzyme bei Bakterien und Schimmelpilze. 2. Elastinlösende Enzyme. C. Eijkman (Utrecht).
52 Behavior of Various Tissues of Animal Organism in Respect to Tetanus Toxin. Ignatowsky.—Zur Frage vom Verhalten, etc.
53 Successful Attempts to Exterminate Mice by Means of Bacillus Cultivated from the Marmot. S. S. Mereshkowsky (St. Petersburg).—Versuche Mäuse mittelst eines aus Zieselmäusen ausgeschiedenen Bacillus in Scheunen und Schobern zu vertilgen. Corroborated by official experiences in Japan.
54 Study of Poultry Diseases. Calamida.—Zum Studium der Hühnerseuchen.
55 Ueber Toxone. N. Swellengrebel (Amsterdam).
56 Sleeping Sickness. A. Castellani (Ceylon).—Aetiologie der Schlafkrankheit der Neger.
57 No Diagnostic Value of Basophile Granulations in Blood of Malarial Subjects. M. Silberstein.—Die basophilen Körnungen im Blute *Malariakranker*.
58 Notes de parasitologie. B. Galli-Valerio.
59 Color Differentiation of Typhoid Colonies. S. Endo.—Verfahren zum Nachweis der Typhus-Bazillen.
60 Disinfecting Power of Painted Walls. G. C. Ghiglione (Genoa).—Ueber das [illegible] der Wandanstriche.
61 Modifikation des [illegible] Neutral-Roth-Nahrbodens (cultu [illegible]
62 Einige Laboratoriums-Apparate: 1, ein verbesserte Thermo-Regulator; 2, Filtrir-Apparate; Decklaszange (tongs for cover glasses). F. G. Novy (Ann Arbor). Illustrated.

Centralblatt f. Gynäkologie, Leipsic.

Last indexed page 275.

63 (XXVII, No. 52.) Eklampsie und vaginale Sectio cesarea. F. Ahlfeld.
64 *Permanent Cures of Carcinoma of Uterus. N. Flaischlen (Berlin).—Zur Dauerheilung des Uteruskarzinoms.
65 Zur Desinfektion geburtshilflicher Instrumente. C. J. Gauss.
66 *Illumination of Vagina and Pelvis. V. Frommer (Berlin).—Beleuchtung der Vagina und des Beckens bei Köliotomie und Laparotomie.
67 (XXVIII, No. 1.) Deportation of Villi and Its Consequences. J. Veit.—Verschleppung von Zotten und ihre Folgen.
68 Ein diagnostisches Zeichen für Gravidität in einem Uterus bicornis. J. Halban.
69 "Ueber Vagitus uterinus." W. Thorn.
70 Eine Modifikation des spitzen Geburtshakens (pointed obstetric hook). Durlacher (Ettlingen).
71 (No. 2.) *Man or Woman? F. v. Neugebauer.—Sechs eigene Beobachtungen von Scheinzwittertum und "erreur de sexe" aus dem Jahre 1903.
72 Zur Technik des vaginalen Kaiserschnittes bezw. Hysterotomia vaginalis anterior. W. Ruhl.
73 (No. 3.) *Eighty-seven Recent Observations of Foreign Bodies Left in Abdomen During Operations. F. v. Neugebauer.—Sieben und achtzig Beobachtungen von zufälliger Zurücklassung eines sub operatione benutzten Fremdkörpers (Arterienklemme, Schere, Schwamm, Gazetupfer, Mull-Kompresse, etc.) in der Bauchhöhle, samt einigen anderen unvorhergesehenen Zufällen intra operationen.
74 *Die chirurgische Behandlung der Retrodeviation des Uterus mittels eines neuen Verfahrens der Uterus-Suspension durch Verlagerung der runden Mutterbänder. N. Bardescu (Bucharest).
75 (No. 4.) Fall von ausgetragener Extra-Uterin-Gravidität mit lebendem Kinde (with living child). A. Czyzewicz, Jr.
76 Two Cases That Illustrate the Disadvantages of Ventrofixatio Uteri. G. W. Maly.—Nachtheile, etc., der Ventrofixatio uteri.
77 Isolierte Ruptur des Sphincter ani ext. intra partum. W. Rosenfeld.

64. **Permanent Cures of Uterine Cancer.**—Flaischlen has investigated the remote results in all the cases of uterine cancer operated on by Ruge and himself between 1885 and 1896 by the vaginal route. Of the total 48, 4 died soon after the operation; 24 have had a recurrence of the cancer, but 20 have shown no signs of recurrence to date. Seventeen of these are permanently cured after an interval of seven to nearly nineteen years. The other 3 died from a casual intercurrent disease in the interim. In 9 of the permanently cured patients the collum was affected, the corpus in 6, and in 2, both simul-

taneously. Among the patients who developed recurrences, 16 died in the first two years, 3 in the third year, and 5 were in good health for four to five years before symptoms of recurrence became apparent. The recurrences were almost all local, in the cicatrix. One of his cured patients was a woman of 30, with an extensive carcinoma involving the portio and entire left vaginal vault, declared inoperable by another surgeon. Enlarged glands could be palpated in the left parametrium. He detached the uterus on the right side and removed with it as much of the left parametrium as possible. He is confident that the enlarged glands were not all removed, but the patient has been in the best of health during the ten years since. If the 3 healthy women who died of intercurrent diseases are included among the permanent cures, the proportion of the latter is 40 per cent., and omitting them, 34 per cent.

66. **Illumination of Vagina and Pelvis During Laparotomies and Celiotomies.**—Frommer gives cuts of the retractors he uses, each of which is fitted with an electric light. He thinks that the instruments answer the purpose better than those devised by Ott (illustrated on page 454 of The Journal of August 23, 1902), as the Trendelenburg position is not required. They can be applied with the patient in any position. The parts are illuminated so perfectly that they can even be photographed by this light. The retractors can be made with one to three lamps as desired, and the whole can be boiled together or the lamps previously removed. They fit close against the convex side of the retractor or are fastened to the concave side with an opening over them for the light to stream through. The wire runs through the handle. The four varieties of these illuminating retractors are illustrated, as they have been used for a few months at Gottschalk's clinic at Berlin with constant satisfaction.

71. **Spurious Hermaphroditism.**—Neugebauer encountered 6 cases of pseudo-hermaphroditism in 1902, in 3 of which the

of the instruments so long that they could not possibly be overlooked. Karl Schröder and Lawson Tait made it a principle to use as few instruments as possible, while Péan used the largest number of any. The smaller the number, the easier the oversight. Neugebauer himself has lately made a practice of having the husband, parent or guardian sign a certificate before an important operation stating his consent to the operation, his knowledge that there is more or less danger connected with such an intervention, and exonerating the surgeon from responsibility in case of suppuration, fistula or any unforeseen mishap, signed also by a witness. He has found that the signing of such a certificate has a very depressing effect on the family and also on himself, but regards this as a minor evil in comparison. He does not exact the certificate in families who he knows to be intelligent and reasonable, but when there is cause to suspect perfidy he invariably insists on it, or declines to operate. Certificates like this were employed in 1883 in one of the German clinics where he served for a time, but they are not in as general use in Europe as he hears they are in America. A surgeon who has once had any experience with a damage suit of this kind soon decides to exact some such protective measure.

74. **Hysteropexy by Suspension of the Round Ligaments.**—Bardescu treats retrodisplacement by making a buttonhole in each lip of the abdominal incision on the median line, and drawing the round ligament through this opening on each side. The abdominal incision is then sutured and the loops of the round ligament are sutured together over it, spread out to give space for three stitches at least. The skin is then sutured. This procedure has been performed on 5 patients, with excellent results. Its advantages are that the ligaments are fastened together, utilizing the strongest part; the support of the rectus muscles is more solid than that afforded by the previous support, and the ligaments still retain all their elasticity and strength. It is similar to Doléris' technic, but

103 Rapid Gasometric Test for Sugar in Urine. E. Riegler (Jassy).—Eine rasch ausführbare gasometrische Methode zur Bestimmung des Zuckers im Harn.

104 Improved Azotometer. A. Jolles (Vienna).—Verbessertes Azotomet stimmung des Harnstoffes und der

105 *Measuremer Auricle. G. Gaertner.—Messung des Drucks im rechten Vorhof.

106 Results of Examination of Diseased Middle Ear During Last Decade. K. Grunert (Halle).—Einige Ergebnisse der pathologisch-anatomischen Forschung des kranken Mittelohres im letzten Jahrzehnt mit Streifblicken auf die Praxis. (Commenced in No. 4.)

107 Mental Disturbances in Incipient Paralysis. G. Fischer.—Ueber hochgradige generelle Störung der Merkfähigkeit bei beginnender Paralyse. (Commenced in No. 4.)

78. **Evil Results of Deep Incision of Cervix During Delivery.**—Hofmeier remarks that voices have been raised in protest against the danger of hemorrhage from Dührssen's incision of the soft parts to facilitate delivery. No one, however, has published anything in regard to the remote evils of the procedure. In 2 cases recently, a subsequent childbirth proved fatal in one case and without prompt intervention would have proved fatal in the other. The rigidity of the site of the former incisions resulted in rupture of the uterus wall just above the cicatrix. One patient had passed through two normal childbirths between the incisions and the last fatal birth. If the Dührssen incisions are deemed absolutely necessary, at least they should be made on the front and rear aspects, and not on the sides, near the large blood vessels.

80. **Eosinophile Cells in Sputum.**—Hildebrandt's extensive experience has demonstrated that the finding of eosinophile cells in the sputum has no diagnostic significance either for bronchial asthma or against tuberculosis.

81. **New Formation of Bone After Resection of Ribs.**—Baldassari and Gardini resected a part of a rib on dogs and substituted calcined bone in some and simply boiled bone in the others or left the gap unbridged. They found that there was scarcely any regeneration of bone when no foreign bone had been introduced. The calcined bone healed encapsulated like any foreign body, but the bone that had been merely boiled healed in place with an actual regeneration of new bone which had evidently utilized the salts in the foreign bone.

82. **Prognostic Significance of the Pulse in Tuberculosis.**—Sterling has become convinced that a normal pulse beat in pulmonary tuberculosis is a favorable sign. A regular acceleration of the pulse in afebrile conditions is a bad sign, proportionately to the amount of acceleration. The prognostic significance of the accelerated pulse is most important in the first stages of the disease. He has been studying the subject for three years and found that the proportionate mortality was with normal pulse during the first stage, 1; with pulse up to 120, 3.1; and with pulse above 120, 12.1. In the second stage, normal, 1; up to 120, 1.8; over 120, 6.1. In the third stage, normal, 1; up to 120, 1.1; over 120, 1.6. He suggests as an improved method of classifying tuberculous subjects to add the figure representing the constant pulse rate to that representing the first, second or third stage. By this means a much better idea of the actual condition would be obtained. For instance, II-88 would have a more favorable prognosis than I-130. Also III-88 would be more favorable than II-140. When the figures representing the first, second or third stage are used alone, this should mean that there is accompanying fever.

83. **Nervous Enterorrhea.**—Richartz reports from von Leube's clinic the case of a man of 52 who had five to twelve alvine evacuations a day, the passages consisting almost exclusively of a clear, thin fluid, the desires abruptly imperious. There were no gastro-intestinal symptoms otherwise, and during sleep and when traveling in the cars he was free from this enterorrhea. He had taken several courses of treatment at various times and places, but without avail. Treatment addressed to a supposed catarrhal affection had no effect, but a cure was obtained by daily injections of tannin with persevering use of cascara by the mouth. The fluid evacuations gradually diminished, and by the end of the third week the patient for the first time in three years passed the day without a single watery stool. The watery stools recur once in a while even now, but the desires have lost their imperious character, which rendered the trouble so unbearable. Richartz offers a theory to explain the success of the tannin and cascara treatment.

84. **Tubercle in the Spine.**—Oberndörffer differentiated the case described by the evidence of tuberculosis elsewhere, the lack of symptoms pointing to caries of the spine, the pronounced unilateral paralysis soon becoming transformed into paraplegia, the sensory paralysis, at first dissociated and later total, and the aggravation of the condition under extension.

85. **Ovariotomy in Gravida.**—Heil adds to Gräfe's statistics 5 new cases personally observed, and others he has collected, bringing the total to 241. He tabulates the later series, and emphasizes the necessity for careful examination of every pregnant woman who complains of pains or other disturbance indicating some irregularity in the genital sphere. If the diagnosis wavers between an extra-uterine pregnancy or an intra-uterine with an ovarian cyst, a laparotomy is indicated at once. An ovariotomy is by far a lesser evil than the overlooking of an extra-uterine pregnancy, especially for a patient who is not under constant medical supervision. He advocates leaving the tube, if possible, when operating during a pregnancy, to avoid traction on the uterus.

87. **Splenectomy.**—Bayer reports a favorable issue to splenectomy undertaken on a boy of 12 on account of idiopathic hypertrophy of the spleen. Since 1891, 254 cases of splenectomy have been published, all the patients recovering except 54. Classifying the cases, we find the mortality 100 per cent. in "stagnation" or amyloid spleen or hypertrophy accompanying cirrhosis of the liver; in leukemic hypertrophy it was 75 per cent. of 8 cases; in splenic pseudo-leukemia, 0 in the 1 case; in rupture, 34.9 per cent. of 43 cases; 0 in 4 cases of abscess; 0 in 3 of tuberculosis; 0 in 4 of hematoma; 7.7 per cent. in 13 cases of hydatid cysts; 20 per cent. in 5 cases of sarcoma; 50 per cent. in 2 of benign growths; 33.3 per cent. in 15 of torsion of pedicle of wandering spleen; 20.2 per cent. in 89 cases of malaria; 6.9 per cent. in 29 cases of hypertrophied wandering spleen; 17.6 per cent. of 17 cases of Banti's disease, and 9.5 per cent. of 21 cases of idiopathic hypertrophy.

88. **Medical Notes in Central Brazil.**—These notes were taken during a German medical mission in 1898-1900 in the Xingu valley. Mansfeld remarks that the Cuyaba region in particular is an eldorado for specialists who wish to study tropical and cutaneous diseases. He was very favorably impressed with the popular beverage, Paraguay tea, as a substitute for tea and coffee.

89. **Inflammation of Sigmoid Flexure.**—Bittorf's 3 cases all displayed a distinct resistance in the left iliac fossa, more or less sensitive to pressure. The temperature was 37.3 to 38 C. The bowels had been more or less irregular for a long time, generally with obstinate constipation occasionally interrupted with diarrhea. The subjects complained of loss of appetite, depression, general nervous disturbances, more rarely of spontaneous abdominal pains especially in the left lower bowel, which was aggravated by certain movements. The tenderness subsided under bed rest, laxatives and dieting, but the resistance only partially retrogressed.

90. **Early Symptom of Severe Appendicitis.**—Moszkowicz calls attention to the serous effusion in the abdominal cavity, which he has found a constant accompaniment of the severer cases of appendicitis. Out of 46 cases, an effusion was found in the abdominal cavity in 27, and in the others it may have existed and retrogressed prior to operation. He believes that this serous effusion is frequently the first sign of impending trouble, before the patient shows any other symptoms indicating a severe involvement, and liable to occur while he still feels quite well. When it is found, it should be regarded as the precursor of diffuse suppurative peritonitis, a signal for operation at once. The effusion is a sign that a large amount of bacterial toxins has already diffused into the abdominal cavity. It resembles in this respect the edema which accompanies a serious phlegmon on the leg or arm.

97. **Acute Pyelitis in Gravida.**—Häberlin has observed 8 cases of idiopathic acute pyelitis in pregnant women. The onset was stormy, with high fever, lumbar pains and generally

chills, accompanied by signs of bladder irritation. All the patients recovered rapidly in the course of one or two weeks, and no permanent injury seemed to have been done. Treatment should be expectant. If the pressure of the fetal head is causing trouble, this can be relieved by a pessary or appropriate position in bed. Large quantities of fluid should be ingested, with salol and urotropin as disinfectants. Artificial delivery is not indicated, as it would be dangerous during the acute stage, and after this is past there is no need for it.

100. **Origin of Tuberculosis.**—Among the arguments which Oppenheimer presents in opposition to Behring's views are the comparatively small number of children who die from tuberculosis during the first twelve months of life, and also the negative response to tuberculin in infants. Also the rarity of primary intestinal tuberculosis, and the fact that the gray nodules found by Behring in calves have never yet been discovered in children.

105. **Determination of Pressure in Right Auricle.**—Gaertner *replies to Prym that his test should be applied to the most delicate* veins, not to those that have lost their elasticity. For this reason he does not use those in the back of the hand.

Virchow's Archiv, Berlin.

Last indexed page 565.

108 (CLXXIV, No. 3.) Anatomische Stüdie über die Glandulæ parathyroideæ des Menschen. H. Petersen.
109 Ein hydrodynamisches Problem und seine Anwendung auf den Kreislauf, speziell im Gehirn (Hydrodynamic Problem Applied to Cerebral Circulation). R. Geigel.
110 *Air Embolism. L. P. Wolff (Berlin).—Experimentelle Studien über Luftembolie.
111 Ueber Pigment-Bildung und Organisation, speziell in einem extraduralen Hämatom. R. Milner.
112 Aetiologie und Pathogenese des Schwarzwasserfiebers (black water fever). A. Plehn.
113 Ueber die pathologische Anatomie des Keuchhustens und das Vorkommen der Keuchhusten-Bazillen in den Organen (whooping cough). G. Arnheim.
114 *Ueber Gallengangkarzinome, sowie über Adenome und primäre Krebse der Leberzelle (cancer in liver and biliary passages). B. Fischer (Bonn).
115 Carcinoma cylindrocellulare gelatinosum oesophagi, ein Beitrag zur Lehre der Keimversprengung (displacement of germinal tissue). Franke.
116 2 Fälle von Leber-Missbildung. H. Kantor.
117 Ueber ein Magendivertikel (diverticulum in stomach). E. Hirsch.
118 (Supplement Number.) *Acute Infectious Diseases Among the Negroes of Equatorial West Africa. A. Plehn.—Die acuten Infektionskrankheiten bei den Negern der äquatorialen Küsten Westafrikas.
119 Zur Pathogenese der Bluterkrankungen (of blood affections). S. M. Zypkin (Moscow).

110. **Air Embolism.**—Wolff's experimental research on air embolism indicates that death is not due to heart failure as much as to extensive embolism in the capillaries of the lungs, impeding the circulation. He was never able to detect the presence of air in the left heart in appreciable amounts. He offers a new explanation for the sounds heard in the heart after introduction of air in the veins, and reviews 115 works bearing on the subject of air embolism.

114. **Cancer of the Liver and Biliary Passages.**—Fischer emphasizes the fact that liver cirrhosis is noticed as accompanying adeno-carcinoma of the biliary system in 85 per cent. of the cases on record. This with other facts which he adduces, he accepts as testimony that the supposed primary cancers in the liver in reality originate in the biliary passages.

118. **Acute Infections Among the Blacks of West Africa.**—A comprehensive picture is here presented of the acute infectious diseases among the natives of the German state of Kamerun on the western coast of Africa, just north of the equator. Plehn has resided there for 8 years and has wide experience on the subject. *He asserts that tuberculosis is entirely* unknown there to date, even in the surgical form. Pneumonia is very prevalent among the natives, the catarrhal form, but does not seem to affect the Europeans. Articular rheumatism is frequently observed. The negro races display remarkable resistance to wound infections, to gonorrhea, dysentery and malaria, and seem absolutely immune to yellow fever. One tribe, the Duala, seems likewise completely immune to infection from syphilis. He mentions the rarity of chronic affections as a characteristic of the pathology of western Africa, as also the severity of many acute diseases. Another point to which he calls attention is that comparatively immune subjects frequently harbor the parasites of malaria. Any affection befalling them is liable to be labeled malarial on account of the discovery of the parasite, when, in reality, it has nothing to do with malaria. Beri-beri is peculiarly severe in Kamerun. In conclusion, Plehn appends a detailed bibliography on the subject. It includes 347 works, with many by American authors. Scheube has recently published a similar comprehensive study of conditions on the eastern coast.

Wiener klinische Wochenschrift, Vienna.

Last indexed page 495.

120 (XVI, No. 49.) *C[illegible]ellum. G. Anton (Graz).—Fall v[illegible]einhirnmangel mit kompensatorische[illegible]r Systeme.
121 Zur Lehre von den [illegible] (sexual characteristics). P. Mathes.
122 *Consequences of Attempts at Taxis in Incarcerated Hernia. H. Haberer.—Zur Kasuistik der Folgezustände forcierter Taxisversuche bei inkarzerierten Hernien.
123 Der komplizierte akute Choledochus-Verschluss (occlusion). F. Fink.
124 Parotitis secundaria bei Pneumonie. Entleerung des Eiters *durch das Gang-System. K. Pichler.*
125 (No. 50.) Tribute to R. Koch on His Sixtieth Birthday.
126 *Zur Differenzierung des Cholera-Vibrio von artverwandten Vibrionen. R. Kraus.
127 *Zur Kenntniss der Pseudo-Diphtherie-Bacillen. J. Schwoner.
128 Zur Frage der passiven Immunisierung. R. Kraus and J. Joachim.
129 Ueber Katalasen in Bakterien-Infiltraten. E. Löwenstein.
130 *Ueber Bakteria-Hemolysine. R. Volk and B. Lipschütz.
131 *Behavior of Albuminoids in Blood Serum During Putrefaction.* E. P. Pick and J. Joachim.—Verhalten der Eiweisskorper das Blutserums bei der Faulnis.
132 *Ueber Kryoskopie und reflektorische Polyurie. G. Kapsammer. From society report.
133 (No. 51.) *Ueber Ureteren-Katheterismus und funktionelle Nieren-Diagnostik. G. Kapsammer.
134 *Celluloid Prothesis. O. Föderl.—Ueber Knochen- und Knorpelersatz.
135 Gradual Disappearance of Tumor in Upper Abdomen. R. Hoffmann.—Ueber das allmähliche Verschwinden eines *Tumors der oberen Bauchgegend (chron. interstitielle Pankreatitis).*
136 Fall von Pancreatitis indurativa. F. Ehler. Five months' course; simulated cancer.
137 *Reflex im Gesicht. von Wagner. From society report.
138 *Rhodan-Therapie bei Lues. Pauli and Jungmann. From society report.
139 (No. 52.) *Zum Nachweise der Tuberkel-Bacillen im Sputum. J. Sorgo (Alland).
140 *Ueber die "Hernia epigastrica." W. Friedrich.
141 *Zur Klinik des primären Endothelioms der Pleura. K. Unger.
142 Zwei seltene Fälle habituell willkürlicher Verrenkungen (voluntary dislocations). W. Heinicke.
143 *Canities prematura und Alopecia areata. Heilung durch Roentgen-Strahlen. K. Ullmann. From society report.
144 (XVII, No. 1.) Successful Treatment of Case of Laryngeal Tuberculosis with Reflected Sunlight. J. Sorgo (Alland).—Behandlung der Kehlkopf-Tuberkulose mit reflektiertem Sonnenlicht.
145 *Die Malaria-Assanierung der Aussenwerke der Seefestung Pola. O. Lenz.
146 Die Impfung in Bosnien und der Hercegovina (vaccination). G. Kobler.

120. **Case of Lacking Cerebellum.**—The cerebellum had evidently developed, but had been entirely destroyed before birth by some pathologic process, probably a softening. The cerebellar tracts in the spinal cord were also lacking. On the other hand, the cortex of the cerebrum had developed apparently to compensate the missing organ. This hyperplasia of the cortex showed normal structure throughout, and the absence of any local resistance to its growth probably contributed to its unusual development. The subject was a girl in her seventh year, the ninth child of a small, slender woman of 42. Birth was normal, but it was soon noticed that the child swallowed with difficulty and frequently choked. Her death was due to suffocation from this cause. Speech and locomotion developed much slower than in other children. Even at the age of 6 she was still unable to stand or walk alone, *although the capacity for movements* had progressively improved. She understood what was said to her, but did not try to talk or move about much herself. It was difficult for her to maintain her balance alone, and almost impossible for her to bend forward or backward. The general physical development corresponded to that of a child of 3. In comparison with the disturbances in locomotion noted with even minor injuries of the cerebellum, the disturbances here were remarkably slight. The excessive development of the centripetal and centrifugal tracts for the cerebral motor impulses indicated hyperfunction and substitution, and confirms the principle of self-regulation as a law for the complicated microcosmos of

the brain, as well as for the most minute living unicellular being. The brain findings are illustrated and described in detail.

122. **Taxis in Incarcerated Hernia.**—Haberer does not allow in his clinic but one single attempt to reduce the hernia. It must be attempted very cautiously, the subject reclining in a bath. If an attempt at taxis has been made outside, before the patient reaches the clinic, no further effort is wasted, but operation is undertaken at once.

126. **Differentiation of Cholera Vibrio.**—Kraus announces that the cholera vibrio does not produce hemolysins, while all the other allied vibriones do produce them.

127. **Pseudo-Diphtheria Bacilli.**—Schwoner separates these bacilli into two groups; one includes the Hofmann bacillus and the other the xerosis and Pfeiffer urethra bacilli.

130. **Bacterio-Hemolysins.**—Volk and Lipschütz have established the existence of what they call lysinoids, the result of the decomposition of lysins, partaking of the nature of a toxoid or avirulent toxin. They announce that it is possible to induce effectual immunization with these toxoids.

132. **Cryoscopy and Reflex Polyuria.**—Catheterization of the ureters is liable to cause a reflex disturbance in the secretion of the kidneys, increasing or diminishing it. When polyuria occurs it reduces the molecular concentration of the urine from the kidney in question, and this might lead to erroneous conclusions, as it simulates an insufficiency of the kidney which may not exist in fact.

133. **Catheterization of the Ureters and Functional Diagnosis.**—Kapsammer extols the value of prophylactic instillation of a 1 or 2 per cent. solution of silver nitrate or of 1 per 1,000 bichlorid when catheterizing the ureter, to prevent infection of the upper urinary ways. In 400 catheterizations he has never found a case in which the subjects were conscious of the instillations. The parts are not so sensitive as some suppose. He also announces that the assumption that the kidneys work equally and alternately is erroneous. In 21 subjects examined, the amounts from each kidney were equal in only 4. In all the others there was a difference up to a maximum of 6 c.c. in ten minutes. His experiences in extensive experimental research were also similar in this respect. In 118 separate tests one kidney always secreted more urine than its mate, with but a single exception. In 11 tests with methylene blue elimination through the kidneys commenced simultaneously in only 4. Normal kidneys in man and animals, therefore, secrete unequal amounts of unlike urine during a given period of time. The filtering capacity of the kidneys and their eliminating capacity by no means necessarily parallel each other. As a rule, they do not work alternately, and one kidney secretes more than the other. The larger outflow of urine may keep one ureter so well washed out that there is no chance for ascending infection, which is liable to occur through the other insufficiently irrigated ureter. This explains the frequency of unilateral pyelitis. In 25 cases of pyelitis he found it bilateral in only 5.

134. **Perforated Celluloid Substitutes for Bone and Cartilage.**—Föderl, describes somes cases to illustrate the superior advantages for prothesis of a sheet of celluloid, closely perforated. He has used it to reconstruct the nose, the trachea and the jaw, and also in wounds of the skull. The flexibility of the celluloid, its smooth surface and the opportunity afforded by the perforations for the proliferation of new tissue in and through the holes, render it an ideal substance for the purpose. For the nose he used a sheet about .5 mm. thick, for the jaw much thicker. It heals in place without any reaction on the part of the tissues.

137. **New Eye Reflex.**—Wagner has found that slight pressure on the eyeball through the closed lid causes twitching of the zygomaticus and quadratus labii sup. This reflex was bilateral in 50 out of a 100 subjects, and was exaggerated in 2 cases of tetany.

138. **Rhodan in Syphilis.**—Pauli and Jungmann have observed marked improvement of the headaches in syphilitics after administration of sodium rhodanate in 2 gm. daily doses.

139. **Improved Technic of Sputum Examination.**—Sorgo breaks up the sputum with hydrogen dioxid and alcohol and then centrifugates. The sediment is not examined, but the supernatant fluid is decanted, mixed with equal parts of lime water and centrifugated again. This sediment is then examined for bacilli as usual. By this double sedimentation a much larger proportion of bacilli is saved for the microscope and they are preserved in better shape than by other methods. He describes the technic in detail, as also its application to other sedimentation procedures.

140. **Epigastric Hernia.**—Friedrich noted this form of hernia in 52 out of 12,724 men applying to the Budapest sickness insurance clinic for various reasons, and in 2 out of 2,557 women. He advocates immediate operation as soon as the hernia is discovered, except when it causes absolutely no disturbances and the subject is leading a sedentary life.

141. **Primary Endothelioma of Pleura.**—Unger's diagnosis of this lesion was confirmed by the necropsy. It was based on the pains in the right thorax developing gradually in a woman of 59 previously healthy, accompanied later by tormenting cough and dyspnea. The pains became intolerable at times and then subsided, leaving free intervals. There were no night sweats, no fever and no expectoration, but the patient lost weight and strength. During inspiration the intercostal spaces did not bulge out, and percussion showed absolute dullness over almost the entire side of the thorax. There was remarkable resistance to puncture; the fluid derived was hemorrhagic, and only 100 c.c. could be obtained by aspiration.

143. **Alopecia Areata Cured by Roentgen Rays.**—Ullmann's patient was treated by two exposures of fifteen minutes each on following days, the tube a medium soft one at 15 cm. distance. The hair in the vicinity fell out and the patient lamented for three months over this artificial aggravation of his condition. At the end of this time the hair began to grow normally again, darker in color than it had previously been. The treatment had evidently stimulated both the growth and pigmentation of the hair, and this result has been permanent during the six months since.

145. **Stamping Out Malaria Along the Austrian Adriatic.**—The two Brioni islands and the town of Barbariga have been freed from malaria during the last year. Lenz describes the various points learned in these efforts, which were commenced three years ago. He has found that the Koch method of giving quinin in prophylaxis—which is so effective in the tropics—is not so reliable in the malaria of the Istria region, which is mainly tertian. The parasites are ensconced in the spleen and bone marrow, and lie latent there for long intervals. In the spleen and marrow they are not affected by quinin, and are not sources of infection for others. When sporulation occurs the parasites swarm forth into the peripheral circulation, and a relapse of the malaria is noted. During the intervals no parasites are to be found in the blood, while in tropical malaria the parasites are almost constantly in the peripheral circulation where they are accessible to the quinin. In destroying the larvæ with kerosene, his experiences showed that the higher the oil was refined the better it spread out over the surface of the water and the less was required. Water thus coated could be used for drinking purposes without detriment. It did not taste of the kerosene when the water was drawn from near the bottom of the receptacle. His experience showed that a modified Grassi-Celli method of quinin prophylaxis proved the most effectual where strict control of the subjects was impracticable. Every one suspected of chronic malaria was given 1 gm. of quinin every day for fifteen days. After this they were given, with all the rest of the populace, 0.4 gm. (about 6 grains) quinin daily until the close of the malaria season. A very small amount of quinin is sufficient to kill the parasites in the peripheral circulation. It is administered in the evening so that the maximum is circulating at the time the mosquitoes are most active. The small amounts caused no symptoms of quinin intoxication, and in sugar or chocolate-coated tablets were taken readily, even by children. By this method, examination of the blood can be dispensed with, and none but the febrile be examined. The efforts

must be renewed each year, as infected mosquitoes can easily be brought in on beasts of burden, etc. The water tanks, etc., must be oil-coated every eighth day, and the populace inhabiting the outlying, intermediate zones must be quinin-protected as before. As the protected area enlarges, this outlying border will be removed farther and farther from the center in which malaria has been radically stamped out.

Revista de Med. y Cir. de la Havana.

Last indexed XL, page 1269.

147 (VIII, No. 6.) *Stab Wounds in the Thorax. F. D. Roldan. —Heridas penetrantes de la cavidad toracica.
148 (No. 7.) *Epilepsia progresiva. A. Mestre.
149 Tratamiento quirurgico del cancer uterino. E. Nunez.
150 Contusion and Suture of Kidney. R. Menocal.—Contusion del Rinon. Incision lumbar. Sutura del rinon. Curacion.
151 (No. 9.) *Complicaciones graves de las otitis supuradas. Carlos E. Finlay.
152 (No. 10.)*Nuevos metodos de tratamiento en el hidrocele vaginal. F. D. Roldan.

147. Stab Wounds of the Thorax.—In one of Roldan's two cases a stab in the third interspace in the back had opened a large bronchus. There was considerable hemorrhage from the vessels accompanying the bronchus. The wound in the latter was large enough to admit the little finger. To prevent hemo- and pneumo-thorax, he tamponed the depths of the wound and fastened the pleura surrounding the wound to the lips of the incision. The wound healed in two months. In a second case the knife had injured the pericardium and entered the diaphragm, but the hole in the latter was too small to fear injury of viscera below. The wound in the pericardium was not sutured, but merely drained with a small gauze wick, as at the touch of the fingers the heart action became much accelerated. The pleural cavity was packed with gauze, the skin sutured, and a compressing bandage applied. The patient was dismissed cured three months after his injury. Roldan discusses the literature on the subject of stab wounds of the pericardium, etc., and gives cuts of the after-appearance of his two patients, both mulattoes.

148. Progressive Epilepsy.—In the case described by Mestre the patient was a youth of 17, previously healthy. A few months before entering the hospital he had commenced to exhibit epileptiform seizures, gradually growing more and more severe and frequent, the spasms involving various limbs, not always simultaneously, but finally becoming practically generalized. The seizures grew more and more frequent during the last five days, with unconsciousness and death. The necropsy showed lesions in the zone of Rolando, pin-head, gray granulations along the vessels, surrounded with a gelatiniform exudate, on the ascending frontal and parietal convolutions, most numerous on the left side. The paracentral lobule was intact, as also all the rest of the cortex, except for indications of hyperemia.

151. Complications of Suppurative Otitis.—Finlay emphasizes that a patient with a suppurating otitis is like a man smoking in a powder magazine. If the affection does not yield to persevering treatment during a month or so, no time should be lost in opening an outward route for the pus. He enumerates 18 different routes by which secretions in the middle ear may escape, including in the list the veins of the dura mater, the temporomaxillary veins, the round and oval fenestræ, etc. He has performed a prophylactic mastoid operation in 24 cases with the rapid recovery of the patients, while in 7 cases in which complications had already developed, the radical operation was able to save only one patient.

152. Roldan's Method of Treating Hydrocele.—Nine engravings accompany this article, showing the various steps of the intervention with which Roldan cures hydrocele vaginalis without recurrence. The patient's pelvis is slightly raised on a cushion to allow a vessel to be placed to receive the escaping fluid. The canula is introduced until it touches the opposite wall of the hydrocele, the guide drawn down inside. The latter is then removed and the fluid allowed to escape. The canula is left undisturbed in the cavity, and the outer end is attached to a rubber tube about 30 cm. long, which communicates with a graduated glass jar, with a capacity of about 150 gm., containing a solution of bichlorid or tincture of iodin. By raising the jar, the fluid flows down into the cavity of the hydrocele, but flows out again when the jar is lowered below the level of the table, the siphon action ensuring the evacuation of all the fluid after its mission is completed. He always injects first about 40 to 60 gm. of a 2 per cent. solution of cocain, siphoning it out afterward by the same method of raising and lowering the jar, following immediately with iodin, leaving the latter in the cavity for three or four minutes, and then rinsing out the last traces of it. During all these procedures the support of the surgeon's left hand must not be removed from underneath the scrotum.

Nordisches med. Archiv, Stockholm.

153 (XXXVI, Int. Med. No. 1.) *Case of Hypertrophic Tuberous Sclerosis with Multiple Angiomyosarcomata in Kidneys. H. C. Jacobeus (Lund).—Fall von hypertrophischer tuberöser Sklerose, etc.
154 *[illegible] (Copenhagen).
155 [illegible] Lokalisation des [illegible] J. Almkvist (Stockholm).
156 *Klinische Studien über Gonorrhoe. H. I. Schlasberg (Stockholm). (Commenced in No. 1.)
157 Ueber maligne Lungen und Pleura-Tumoren. I. D. Oelrich (Lund). (Commenced in No. 1.)
158 Fall von sogenannter idiopathischer Oesophagus-Dilatation. F. Gregersen (Copenhagen). With literature.

153. Tuberous Sclerosis with Kidney Lesions.—Jacobeus mentions that multiple kidney tumors are noted as accompanying the tuberous sclerosis in 7 of the 25 cases on record. The brain findings in the case described are illustrated.

154. Angiospastic Pseudo-Anemia.—Vermehren's work is based on 10 absolutely typical cases, and a number of others less definite in their type. He has also encountered a number of cases in which the anemia stage of the neurosis had not been reached. A feeling of depression and weakness is a constant symptom in the typical cases. The working capacity is slight, and the subjects feel drowsy all the time, and occasionally have headache and vertigo. Transient amnesia is also noticed at times, with chilliness, short breathing and rapid heart action, with a tendency to palpitations under emotions. Another frequent symptom is the variability of the diuresis, the urine at times scanty and dark-colored, and again copious and limpid. The subjects are usually very pale. This clinical picture is constant, but other symptoms are liable to be superadded, among them hot flashes, the hands or feet "going to sleep," the complexion becomes livid, and these transient symptoms are followed by a depression almost amounting to collapse. In none of his cases was there actual anemia, but the condition was evidently due to abnormal vascular phenomena. Only 2 out of his 10 patients displayed any predisposition to nervousness. The age ranged from 13 to 57, and the condition had been noted from childhood or puberty, and in one case from the age of 40. He attributes it to an exaggerated excitability of the vasomotor centers. They react to the influence of cold, emotions, etc., in an abnormally intense manner. This neurosis differs from neurasthenia in several points, and is best described as angiospastic pseudo-anemia. The number of red corpuscles and proportion of hemoglobin are normal or above. In treatment, he put his patients on a milk-vegetable diet, the benefits of which were marked in nearly all the cases. Valerian displayed pronounced efficacy. In one case the patient, a girl of 17, was completely cured by a combination of valerian and potassium bromid with restriction of meat. Electricity was beneficial in some cases, but failed in others. He tried nitroglycerin in 1 case without effect. When a change of scene was possible, great benefit was derived, especially from a trip to the country. The oldest patient improved on a milk-vegetable diet for two weeks, and valerian until she felt better than for many years, she said. The condition had commenced at 40 in this case.

156. Gonorrhea.—Schlasberg believes that folliculitis is a frequent complication of gonorrheal urethritis and delays its healing. The paraurethral and preputial passages may become infected and delay the cure. The prostate may also prove a source of reinfection for the urethra. An epididymitis, on the other hand, favors the cure of urethritis and also of folliculitis. Gonorrheal inguinal adenitis may possibly have a similarly beneficial effect on the process in the urethra.

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Original Articles.

PERFORATING GASTRIC ULCER; POSTERIOR GASTRO-ENTEROSTOMY; FOWLER'S POSITION.

J. H. MUSSER, M.D., and W. W. KEEN, M.D.
PHILADELPHIA.

MEDICAL HISTORY OF THE CASE AND REMARKS BY DR. MUSSER.

I have reported with Dr. Wharton a case that was in many respects similar to this. In that case operation was done within ten hours after perforation, which accident fortunately took place while the patient was fasting, an incident corresponding to the course of the second case. In the second case the operation was done five and one-half hours after perforation. The first patient had not had solid food for twenty hours, and only a small amount of coffee eight hours before perforation. The second patient had been without solid food, and had taken only albumin water for from forty-eight to sixty hours. No opportunity to make a gastric analysis was given in the first instance, although it is presumed hyperchlorhydria was present, an extreme state of which was found in the second. Doubtless this excess of acid, unneutralized, contributed to the perforation. Accordingly, it may be well to emphasize the importance of neutralizing the acid by appropriate remedies in cases of gastric ulcer, when food that takes up the acid is not permitted. Without doubt the early operations at the time when the stomachs were empty, were important factors in saving the lives of the patients.

Another point of great interest was one of dissimilarity, but the contrast teaches an important lesson. The first patient was a muscular farmer. Rigidity of the abdominal muscles was extreme. In the second case there was great atrophy of the abdominal walls, and in consequence there was no spasm or rigidity. Hence, given the lesions likely to cause spasm under other circumstances, it will be absent with abdominal walls of the character to be described.

I should like to add that the first patient is in excellent health, no gastric symptoms having returned.

I had seen Mrs. M. during November, at the request of her husband, a physician. She was 70 years of age, and had enjoyed excellent health until one year ago. She had been treated at that time by Dr. Boardman Reed for ulcer of the stomach, characterized by *pain* and hemorrhage. When seen by me she was suffering from pain, the occasional vomiting of large amounts of fluid, the daily regurgitation of a small amount. The pain was spasmodic, referred to the pylorus and relieved by regurgitation. It was not increased by food, except when the stomach was overfull.

On physical examination, the stomach, overdistended, could be well made out, and visible peristalsis was present. The pain often was coincident with the termination of a wave of peristalsis, at the region of the pylorus.

I concluded that the patient had pyloric obstruction due to spasm. No tumor could be made out. A soft tube passed into the stomach resulted in the withdrawal of two quarts of dark, grumous, offensive material. Afterward there was a perfect relief, and for almost three weeks she was without pain or distress. A test meal (Ewald) revealed total acidity 65, free HCl 40, absence of lactic acid, presence of sarcinæ and large bacilli. The odor was butyric. Lavage was done most carefully only twice, because of the possible ulcer. It seemed that an ulcer had healed causing constriction at the pylorus, or that an active ulcer was attended by pyloric spasm. The small vomitings were due to the regurgitation—the incontinence of retention. November 17 the patient washed out her stomach herself. November 19 sudden profuse hemorrhage occurred; at least a quart was vomited, followed by collapse. Rectal feedings, sips of water and egg albumin were resorted to.

November 26, at 9:30 a. m., she was seized with sudden pain in the median line or to the right, between the xiphoid and the navel, followed by shock. I saw her within half an hour. There was pain, vomiting of mucus, but no blood, rapid pulse, tenderness, no spasm, cool extremities. She lay on the left side chiefly. The pain was considerable in the back and right shoulder. Liver dullness was present. A perforation had doubtless taken place, and an operation was advised.

Dr. Keen saw the patient at 12 m. Dr. Reed, her former attendant, joined us. Reaction had set in. Temperature, 99; pulse, 85. The patient complained of great pain and favored the left lateral dorsal position. Drs. Keen and Reed concurred in the diagnosis of perforation, and urged with me immediate operation. Dr. Keen operated at 3 p. m., five and a half hours after perforation had taken place.

SURGICAL HISTORY AND REMARKS BY DR. KEEN.

I first saw Mrs. M., a woman a little past 70 years of age, in consultation with Dr. J. H. Musser and Dr. Boardman Reed, Nov. 26, 1903, at noon. I had known the patient for a number of years. I had not seen her for three or four years and was struck with her loss of weight and emaciation. After an examination, I fully concurred in the diagnosis of perforated gastric ulcer, and three hours later the operation was done.

An incision was made to the left of the middle line on account of extensive diastasis of the recti muscles following her single pregnancy about forty-eight years ago. Only a very few muscular fibers were seen. The muscles were not only widely separated, but greatly atrophied. The entire abdominal wall was not over 1 cm. in thickness. As soon as the abdomen was opened, a little turbid, rather dark colored fluid poured out, and when the stomach was drawn out, a few flakes of lymph were found on it. In a moment the perforation was discovered. It was an aperture slightly oval, very sharply punched out, 5 mm. in its long diameter, situated precisely in the middle of the pylorus anteriorly. The whole pylorus was thickened, but not nodulated. Evidently it had been the seat of an old ulcer involving all the anterior wall. The ulcer was immediately closed by a continuous Lembert suture. The abdominal cavity was then flushed out with a large quantity of salt solution, care being taken to wash out between the diaphragm and the liver, and also down into Douglas' cul-de-sac, where a considerable amount of turbid fluid was found. The diaphragm was but little injected. The transverse colon was then turned up, a hole torn through the mesocolon, and a posterior gastro-enterostomy done by means of a Murphy button. The peritoneal cavity was then again most carefully flushed out till the fluid, as in the first instance, returned clear. A number of adhesions were found between the coils of the intestine and the anterior abdominal wall and the omentum and the abdominal wall in the lower half of the abdomen, but I did not think it wise to prolong the operation by interfering with them. She was placed in bed in Fowler's position (i. e., with head of the bed raised).

She made an uninterrupted recovery, her highest temperature being 100.4 F. On December 1, five days after the operation, her temperature reached normal. In consequence of the thinness of her abdominal wall, I kept her in bed for four weeks. She went home December 31, wearing a belt and able to walk about without trouble.

The recovery from so serious a lesion as a perforating gastric ulcer and so serious an operation as abdominal section and gastro-enterostomy in a woman past 70, is a sufficient reason, it would seem, for recording such a case. Her recovery was due, I have no question, largely, first, to the promptness with which Dr. Musser acted; and, secondly, to the fact that her stomach contained little beside albuminized water. Yet, in spite of this favorable condition of the stomach, there were a few flakes of lymph already present on the stomach. A culture was taken from the abdominal cavity as soon as it was opened, and this proved, after eight days, to be sterile. I do not know that Fowler's position influenced the recovery in this case very much, in view of the facts just stated, but it certainly, at least, did no harm.

I debated for a few moments whether I should do Finney's gastroduodenostomy by means of a horseshoe-shaped incision extending from the duodenum into the stomach. I, however, finally decided against it on account of the great thickening of the whole anterior pylorus, and because I believed it would take longer than a gastro-enterostomy by the Murphy button. For the last reason also I decided against a gastro-enterostomy with simple suture.

Up to the present time, over two months after the operation, the button has not passed, but it has not produced any trouble.

To irrigate wounds or large cavities employ solutions at or slightly above body temperature, as cold interferes with repair. —*Internat. Jour. of Surg.*

BOVINE AND HUMAN TUBERCULOSIS.*

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In the last two reports presented by this committee considerable space was devoted to the subject of tuberculosis, and particularly to that phase of it which relates to the transmission of the disease from animals to man. It was shown from a review of the facts obtained by different methods of inquiry that the clinical evidence, the evidence of statistics, and the evidence from experimental researches all favored the conclusion that animal tuberculosis was a factor in the causation of human tuberculosis, and it was held that sanitarians should advocate and enforce measures to prevent the transmission of the disease from animals to man. This question is so important and so much uncertainty has been caused by the paper presented at the British Congress on Tuberculosis by Koch, and by his subsequent address at the International Conference on Tuberculosis at Berlin, that it is deemed advisable to continue the discussion in the present report.

The fact that tubercular material from human subjects often failed to produce serious disease in cattle was observed by a number of the earlier investigators who experimented with such virus. It was the experiments and comparative studies of Theobald Smith, however, which attracted special attention to the difference in virulence shown by tubercle bacilli from human and bovine sources when inoculated on cattle. Smith also mentioned certain morphologic and cultural differences in bacilli from these two sources, and in the location and histology of the lesions in cattle produced by such bacilli. He did not conclude, however, that bovine bacilli could not produce disease in the human subject, but said: "It seems to me that, accepting the clinical evidence on hand, bovine tuberculosis may be transmitted to children when the body is overpowered by large numbers of bacilli, as in udder tuberculosis, or when certain unknown favorable conditions exist."

Koch, however, in his address at the British Congress on Tuberculosis, went far beyond this and maintained that "human tuberculosis differs from bovine, and can not be transmitted to cattle." As to the susceptibility of man to bovine tuberculosis, he said it was not yet absolutely decided, but one was "nevertheless already at liberty to say that, if such a susceptibility really exists, the infection of human beings is but a very rare occurrence." He emphasized this view in the following language: "I should estimate the extent of infection by the milk and flesh of tubercular cattle, and the butter made of their milk, as hardly greater than that of hereditary transmission, and I therefore do not deem it advisable to take any measures against it."

This conclusion was so radically different from the views of most experimenters, and so out of harmony with facts which had apparently been demonstrated by others, that it at once aroused opposition in the congress, followed by the adoption of dissenting resolutions, and led to numerous investigations in various countries. Koch's conclusions were based on his failure to produce tuberculosis in cattle and other animals by inoculating them with tubercular material of human origin, and his success in causing progressive and fatal tuberculosis in the same kinds of animals when inoculated with tubercular material of bovine origin. With such positiveness did he hold to the constant and specific difference between the human and bovine bacillus that he promulgated an experimental method of discriminating between them. Speaking of the etiology of intestinal tuberculosis in man, he said: "Hitherto nobody could decide with certainty in such a case whether the tuberculosis of the intestines was of human or of animal origin. Now we can diagnose them. All that is necessary is to cultivate in pure culture the tubercle bacilli found in the tubercular material, and to ascertain whether they belong to bovine tuberculosis by inoculating cattle with them. For this purpose I recommend subcutaneous injection, which yields quite specially characteristic and convincing results."

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* Report of the Committee on Animal Diseases and Animal Food, presented by the chairman at the meeting of the American Public Health Association, at Washington, D. C., Oct. 27, 1903.

These important and comprehensive conclusions followed from very few experiments on animals, and apparently no effort had been made to learn to what extent human tubercle bacilli might differ in their virulence for cattle or what grades of virulence there might be among bacilli of bovine origin. Vagedes had already shown that bacilli were sometimes present in human lesions which were as virulent as bovine bacilli, but his work was ignored by Koch. In the preceding report of this committee reference was made to the work of Ravenel, DeSchweinitz, Mohler, DeJong, Delépine, Orth, Stenström, Fibiger and Jensen, Max Wolff, Nocard, Arloing, Behring, and Dean and Todd, all of whom found tubercle bacilli in human lesions which proved to have about the same virulence for cattle and other animals as had the bacilli from bovine animals affected with tuberculosis. Since that report was presented Theobald Smith has reported the finding of a human bacillus virulent for cattle, and there has been made a preliminary announcement by Kossel of the results obtained by the German tuberculosis commission. The statement of Kossel should be given the most careful consideration, coming from a commission appointed on Koch's recommendation, and evidently inclined to favor his views as far as possible in its report.

Kossel stated that the commission had tested seven cultures of tuberculosis from cattle and swine, four of cattle and three of swine. Two of these cultures proved acutely fatal in cattle after 8 to 9 weeks; four of the cultures likewise produced a generalized tuberculosis, but which certainly had a more chronic course; while one of the cultures caused only an infiltration at the point of inoculation, with some caseous foci in the adjoining prescapular gland and in one of the mediastinal glands, and there was lacking the spreading of the tuberculosis over the entire body which they were accustomed to see after the injection of cultures of bovine tuberculosis. "Hence," says Kossel, "among bovine tuberculosis bacilli there can also occur differences with regard to the virulence."

The German commission also tested 39 different freshly made cultures from tuberculous disease in man. Nineteen of these cultures did not produce the slightest symptoms in cattle; with 9 others the cattle exhibited after 4 months minute foci in the prescapular glands which were mostly encapsulated and showed no inclination to progress; with 7 other cases there was somewhat more marked disease of the prescapular glands, but it did not go so far as a material spreading of the process to the glands next adjoining; there were four cultures, however, which were more virulent and caused generalized tuberculosis in the cattle inoculated with them.

It would appear, therefore, that hereafter even Koch must admit that it is impossible always to tell the source of a culture of the tubercle bacillus by its effects when it is inoculated on cattle. One of the bovine cultures failed to produce generalized tuberculosis in cattle and some of the human cultures did produce this form of the disease in such animals; moreover, while some of the human cultures caused no disease at all, others led to the development of minute foci in the prescapular glands, and still others to somewhat more marked disease of these glands. There were, consequently, four degrees of virulence noted in these 39 cultures of bacilli from human sources, and three degrees of virulence in the 7 cultures from animal sources. Now, if we accept the views of Koch as to the specific difference between human and bovine tubercle bacilli, and that the human bacilli produce only localized lesions in cattle, while bovine bacilli produce generalized lesions in these animals, must we not conclude that the one non-virulent bovine culture was in reality of human origin and that the animal from which it was obtained had been infected from man? This is a logical deduction, but reverses the dictum laid down at London that human tuberculosis is not transmissible to cattle. Again, how are we to explain the human cultures of medium virulence? Are they human bacilli which for some unknown reason are increasing in virulence and approaching the activity of the bovine bacillus, or are they really bovine bacilli which have multiplied in the human body until their virulence has become attenuated? In whatever manner these questions are decided, it would seem that the findings of the German commission, instead of supporting Koch's views that we can decide with certainty by the inoculation of cattle as to the source of any given bacillus, really show that this method of diagnosis is extremely uncertain in the present condition of our knowledge.

It is definitely admitted that four of the human cultures caused generalized tuberculosis in cattle; but Kossel suggests that it might be possible that the bacilli in cases of human tuberculosis under certain circumstances could likewise attain a very high pathogenic activity for cattle without being for that reason bovine bacilli. Undoubtedly, the German commission is confronting the two horns of a dilemma, either one of which is fatal to the views of Koch as stated with such positiveness at London. If we accept this suggestion thrown out by Kossel, we must conclude that Koch was wrong in his assertion that human tuberculosis can not be transmitted to cattle, and thus with one blow we destroy the entire experimental support which he had for his argument before the British Congress on Tuberculosis. And if, on the other hand, we accept the conclusion which follows from the principle laid down by Koch for the discrimination between human and bovine bacilli, and which appears to be favored by Kossel, we must admit that bovine tuberculosis is an extremely important factor in the etiology of human tuberculosis. Of the 39 cases of human tuberculosis tested, 4, or over 10 per cent., were virulent for cattle and would be classified as of bovine origin; but these 4 cases were all found among the 16 cases of tuberculosis in children which the commission investigated; hence, it is plain that 25 per cent. of the cases tested of tuberculosis in children would by Koch's method be classified as of bovine origin.

In the Bureau of Animal Industry two distinct lines of experiments have been carried on, in order that one might serve as a check against the other. There has been, however, no discrepancy in the results. De Schweinitz, in the biochemic division, has isolated nine cultures from human tuberculosis. Two of these were derived from human sputum, three from cases of generalized tuberculosis in adults, and four from cases of generalized tuberculosis in children. By comparing these cultures with a newly isolated virulent culture of bovine tuberculosis, there were found among them two cultures from children which were identical in their cultural and morphological characters with the bovine bacillus. These cultures also killed rabbits and guinea-pigs in as short a time as did the bovine bacillus. Hogs which were inoculated subcutaneously with these two cultures from children died of generalized tuberculosis. Two calves, weighing over 30 pounds each, were inoculated subcutaneously with these virulent human cultures *and as a result developed generalized tuberculosis.* A yearling heifer inoculated with one of the cultures showed generalized tuberculosis when killed three months after inoculation. Both the cattle and the hogs had been tested with tuberculin and found to be free from tuberculosis before the inoculations were made. It is important to observe in this connection that two out of four, or 50 per cent. of the cultures obtained from cases of generalized tuberculosis in children, proved virulent for cattle.

Mohler, working in the pathological division, has obtained three very virulent cultures of tubercle bacilli from the human subject. A goat inoculated subcutaneously with one of these cultures died in 37 days with miliary tuberculosis of the lungs involving the axillary and prescapular glands. This bacillus was obtained from the mesenteric gland of a boy. Of still greater interest is a bacillus isolated by Mohler from human sputum. A goat inoculated subcutaneously with a culture of this germ died in 95 days of pulmonary tuberculosis. A cat inoculated in the same manner died in 23 days of generalized tuberculosis. A rabbit similarly inoculated died in 59 days of pulmonary tuberculosis. Another rabbit inoculated with a bovine culture for comparison lived 10 days longer than the one inoculated with this sputum germ. Mohler also inoculated subcutaneously a 1-year-old heifer with a culture derived from the tubercular mesenteric gland of a boy 4 years of age. This culture was always refractory in its growth under artificial conditions, and the bacilli were short stubby rods corresponding in appearance with the bovine type. At the autopsy, held 127 days after the inoculation, the general condition was seen to be poor and unthrifty, and large, hard tumors were found at the points of inoculation. On the right side, the swelling measured 3½ by 5 inches, and the corresponding lymph gland was 2¾ inches long by 1¾ inches in diameter. This gland contained numerous calcareous foci, one of these at the apex being an inch in diameter. The lesions on the left shoulder of the animal were very similar to those found on the right side, but the dimensions of the tumor were slightly less. The lungs presented an irregular mass of tubercular nodules, and 7 or 8 grape-like nodules were seen on the parietal pleura. Bronchial and mediastinal lymph glands contained numerous tubercular foci, and the pericardium, peritoneum, spleen and liver were also affected.

In order to throw some light, if possible, on the morphological constancy of the different types of tubercle bacilli, Mohler was requested by the chairman of your committee to make comparative studies of bacilli from various sources, and which had been passed through various species of animals, by making the cultures on dog serum after the method described by Theobald Smith. Some important results have been obtained. One culture of human bacilli which had morphological and cultural peculiarities similar to those of the bovine bacillus, and which only produced local lesions in cattle, was passed through a series of 5 cats. It was then found to be completely changed in its morphological characters, the rods being elongated, slender, more or less beaded and entirely of the human type. But far from decreasing in virulence, as might be expected from their morphological appearance, this bacillus had so increased in its pathogenic activity that it now produced generalized tuberculosis in a cow. This cow was inoculated subcutaneously in front of each shoulder with 2 c.c. of a salt solution emulsion of the tuberculous omentum of the last cat of the series. The cow rapidly lost flesh, had a temperatore of 104° F., with the point of inoculation and adjacent glands greatly swollen. The autopsy revealed generalized tuberculosis, involving the lungs, mediastinal glands, spleen, liver and kidneys. Tubercle bacilli of the bovine type obtained from the mesenteric glands of a sheep, hog and cow were similarly transformed in their morphological appearance after being passed through a series of cats and recovered on dog serum. These bacilli also increased in virulence, as the last cat of the series invariably succumbed in a shorter time than the first of the series.

These experiments and observations indicate that the types of tubercle bacilli are very inconstant, and that under suitable conditions they readily change both in morphology and in virulence. A similar conclusion was reached by other investigators in working with the avian and piscine types of tubercle bacilli several years ago, and was reasonably to have been expected with the human and bovine types.

It must be plain to all from these recent developments, that too much has been made of the slight differences in cultural characteristics, in morphology, and in virulence which have been observed in some cases in comparing the human and the bovine bacilli. The observations were interesting and it was important that they should be followed up until their significance was made entirely clear; but it was an almost unpardonable error, from a sanitary point of view, to promulgate sweeping generalizations, calculated to arrest and abolish important measures for preventing human tuberculosis, before the soundness of these generalizations had been established by a thorough course of experimentation.

When Koch said in the British Congress on Tuberculosis that he should estimate the extent of infection by the milk and flesh of tubercular cattle, and the butter made of their milk, as hardly greater than that of hereditary transmission, and that he therefore did not deem it advisable to take any measures against it, he went far beyond what was justified by any experiments or observations which he reported, and he did an immense amount of harm which will be manifested for years to come to those who endeavor to guard the human race from the dangers of animal tuberculosis. The researches to which your committee has alluded make these dangers more definite and certain than they have appeared before, and sanitarians should therefore most earnestly endeavor to counteract the erroneous and harmful impression which was made by Koch's address at London and his subsequent address at the International Conference on Tuberculosis at Berlin.

Now that the conclusions of the London address are shown to be incorrect and based on insufficient experimentation, it is well that some attention should be given to the Berlin address in which certain rules were laid down for testing all clinical evidence before it can be accepted as indicating the transmission of tuberculosis from animals to man. While your committee agrees that it is advisable to scrutinize clinical evidence as carefully as possible before it is accepted as influencing the decision of such an important question, consistency demands that we should accept clinical evidence bearing on the transmission of bovine tuberculosis to man on the same terms that we accept evidence bearing on the transmission of tuberculosis from man to man. For instance, Koch said in his London address, "So the only main source of the infection of tuberculosis is the sputum of consumptive patients." How does he know this? Has he any evidence to support this conclusion which will stand the requirements which he has laid down for those who oppose his views with reference to the transmission of animal tuberculosis to man? If so, this evidence has not yet been presented. Your committee believes that the principal source of tuberculosis in man is infection from other tuberculous human subjects, but it also believes that a considerable proportion of the cases of tuberculosis in man is due to infection from animal sources; and in weighing the evidence by which we are to fix more rigorously the relation which these two sources of infection bear to each other, it is logical that we should apply the same rules of evidence in each case.

The rules which Koch formulated for testing the evidence as to bovine infection are given below, with such brief comments as your committee feels they deserve.

"1. Certain proof of tubercle, and where possible the primary focus must be supplied."

To this condition no objection is raised, but it should be remarked that the location of the primary focus, which is made so much of, is of little value in determining the origin of the infection. It has been clearly shown by various investigators, whose work has been referred to in the preceding reports of this committee, that tubercle bacilli may pass through the walls of the intestine without producing any lesion at the point of entrance, and that their first point of lodgement and multiplication may be the mesenteric glands, the liver, spleen or even the lungs. On the other hand, Koch has told us that the location of the primary lesion in the intestine is of no significance because human as well as animal bacilli may be swallowed and may be the cause of such lesions. It is, therefore, not at all apparent that this is an essential point.

"2. Other sources of infection must be excluded with certainty."

This condition appears to exclude all clinical evidence bearing on the source of tubercular infection. How is it possible to prove that any given individual has not been exposed to the bacilli of human tuberculosis? And, for the same reason, how is it possible to prove that any given individual has not been exposed to the bacilli of animal tuberculosis? It may be said that this consumptive person had habitually been in a room with another consumptive patient and was infected from that patient. But how can you prove that this person never ate any tuberculous meat, never partook of any tuberculous milk, never ate any butter containing the tubercle bacillus, never had opportunity to be indirectly infected from the hands of cooks or from table utensils which had been in contact with tuberculous meat, milk, or butter, and was never exposed to the infection scattered in so many ways by tuberculous animals? It is impossible to exclude with certainty all these sources of infection, and if we apply the condition under discussion to the evidence on which Koch based the assertion that the main source of the infection of man is the sputum of consumptive patients, we would find no part of it that would stand the test. Now, is it logical to accept clinical evidence, as to the transmission of tuberculosis from man to man, by one set of rules, and to require an entirely different set of rules when considering evidence as to the transmission of the same disease from animals to man? Your committee is of the opinion that clinical evidence should be regarded as valuable in confirming experimental researches, or in indicating the probable facts where experimentation has been insufficient or is impossible, but that it is too much to expect that clinical evidence will be forthcoming as to the transmission of tuberculosis which will exclude all possible sources of error.

"3. In each case of alleged infection from milk affected with bovine tuberculosis the condition of the rest of the people who have taken the same milk should be borne in mind. These fellow consumers form to a certain extent a control experiment, and if of the numerous people who have drunk the suspected milk only a single one sickens, this weighs decidedly against the belief that this one person was infected by the common food."

This condition, also, is regarded by your committee as illogical and impossible of general application without discarding all clinical evidence on this question. If we apply it to the alleged cases of sputum infection, we find it is seldom, indeed, that the disease in more than one person can be traced with any probability to the same tuberculous patient, although scores of persons may have been exposed to that patient. Most people who escape tuberculosis have nevertheless been exposed many times to tuberculous patients, but this is not sufficient reason for concluding that others have not contracted the disease by similar exposure. Tuberculosis is a disease which is communicated with such difficulty among people under ordinary conditions of life, either by exposure to diseased persons or to tuberculous food, develops so slowly, and varies so much in the period which elapses before symptoms are observed, that it is only very rarely that groups of cases are observed which even appear to have originated from the same source. And yet, how erroneous it would be to exclude clinical evidence suggesting contagion because only one of those exposed to a certain consumptive had contracted the malady.

"4. The source of the milk should be attended to. Since in recent years it has become more and more evident that milk containing tubercle bacilli is yielded by such cows as suffer from tuberculosis of the udders, the general statement that some one has drunk milk from a cow suffering from tuberculosis no longer suffices to prove to us that bovine tuberculosis bacilli have really reached his digestive organs. It must be from a cow suffering from tuberculosis of the udder, and therefore a statement on this subject should not be wanting in a report on milk infection if it is said to be complete."

Your committee finds this statement of fact to be incorrect, since the tendency of recent investigations by competent persons is to make it more and more evident that cows with tuberculosis may yield milk containing tubercle bacilli when the udders present no signs of the disease. The argument is, therefore, antiquated. Of the many experiments that have been made to determine the proportion of tuberculous cows which yield infectious milk, the average results are about 15 per cent, while the cases of tuberculosis of the udder are about 2 per cent. In recent investigations made by Mohler of the Bureau of Animal Industry with 56 reacting cows, it was found that 12 of these, or 21.4 per cent., at one time or another during the experiment gave milk which contained virulent tubercle bacilli. Undoubtedly cows with tuberculosis of the udder yield milk containing a larger number of tuberculosis bacilli than do those in which the udder remains unaffected and are, therefore, more dangerous, but it has been clearly shown that other tuberculous cows may yield virulent milk.

So much for the conditions laid down by Koch for testing clinical evidence bearing on the transmission of tuberculosis from animals to man. The effort to rule out all such evidence by applying impossible tests does not meet with our approval, but fortunately clinical evidence is no longer necessary for deciding the question. The subcutaneous injection of cattle with pure cultures of the tuberculosis bacillus from human sources, which, according to Koch, "yields quite specially characteristic and convincing results," has proved, in the hands of the German commission no less than in those of independent investigators, that bovine tuberculosis is communicable to man. It will require much work to decide with even approximate accuracy the proportion of human tuberculosis caused by animal infection; but the fact that 25 per cent. of the cases in children investigated by the German commission, and 50 per cent. of similar cases investigated by De Schweinitz showed by this test that they were caused by animal infection, is sufficient to convince us that measures should be taken and enforced at once to guard against infection from this source.

In concluding your committee desires to express its appreciation of the prompt, intelligent and indefatigable work of those scientific investigators who took up this question immediately after it was brought to the front at London, and who, in the comparatively short period of two years, have furnished the material for definitely settling it, so far as the principal contention is concerned.

THE CONDITION OF THE BLOOD IN PATIENTS SUFFERING FROM PULMONARY TUBERCULOSIS.*

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PHILADELPHIA.

The study of the blood in the patients who furnished the material for this paper was made possible by the kindness of Dr. Julius L. Salinger, who placed his tuberculosis ward in the Philadelphia Hospital at my disposal. The paper is based on the counting of the erythrocytes, the counting of the leucocytes, the estimation of the hemoglobin, the differential count of the leucocytes and the search for the iodin reaction of the leucocytes in twenty-five cases of pulmonary tuberculosis, and one case of extensive cavity formation in the lung due to bronchiectasis.

In studying the results of these blood counts I shall adopt the classification of Grawitz,[1] who divides the disease into three stages. A first stage, in which there is a beginning affection of the apex, without cavity formation; a second stage, in which there are symptoms of cavity formation with slight fever or without fever; and a third stage in which hectic fever is present.

FIRST STAGE.

There is one patient (26) who represents the first stage of consolidation of the apex, without cavity formation. This patient showed a slight reduction of the erythrocytes to 3,980,000; a normal number of leucocytes, 10,000; and a moderate reduction of hemoglobin to 70 per cent. This patient improved very much under treatment, and was finally discharged without symptoms and with few physical signs. As his general condition improved there was a corresponding improvement in the blood picture; the erythrocytes rose to 4,580,000 and the hemoglobin increased to 82 per cent. With the improvement of the blood condition, the leucocytes rose to 16,600.

An examination of the differential leucocyte count of this patient shows that the relative proportion of the different cells was not changed. The treatment, under which the patient greatly improved, apparently caused an increase in the eosinophiles from 1.6 to 3 per cent.

SECOND STAGE.

There are eight patients (2, 4, 5, 6, 10, 14, 20, 22) representing the second stage of the disease. In these cases the erythrocytes were usually normal in number. In four instances they were present in greater numbers than 5,000,000 to the cubic millimeter, and in one instance they only numbered 3,680,000. The range of the erythrocyte counts was from 6,710,000, in a negro who had complained of cough for twelve years, to 3,680,000, also in a negro, who had been ill for two and one-half months, and who had albuminuria.

Seven of these patients showed a leucocytosis, varying from 34,000 to 11,120, and one showed a leucopenia of 7,100. The latter patient had carried a cavity in his right lung for a number of years and the disease was stationary.

In these patients the differential counts showed, as a rule, a percentage of polymorphonuclear cells above 80, the highest being 93.4. In three cases the polymorphonuclears formed 70.4 per cent., 73.6 per cent., and 78.8 per cent of the leucocytes, respectively. In one patient the first examination was made during an asthmatic paroxysm and showed 80.8 per cent of polymorphonuclear cells. A second examination was made about four weeks later, after the asthmatic paroxysms had ceased, and gave 78 per cent. of polymorphonuclear cells. Eosinophile cells were present in all of these patients except two, in proportions varying from 3 per cent. to 0.2 per cent. The two patients from whose blood these cells were absent left the hospital before a second examination could be made and their ultimate fate is unknown.

The hemoglobin varied from 90 per cent to 63 per per cent., although all patients showed some pallor of the skin and the mucous membranes. Indeed, in some instances the percentage of hemoglobin was at first thought to have been erroneously estimated until more than one trial showed the reading to be accurate.

THIRD STAGE.

There are fifteen patients (3, 7, 8, 9, 11, 12, 13, 15, 16, 17, 18, 19, 21, 23, 25) who may be placed in the third stage of the disease—that of hectic fever. In these patients the erythrocytes were usually reduced in number, although a normal number of these cells was occasionally found. The counts ranged from 5,710,000 to 2,890,000, with an average of about 4,019,130. The highest count was obtained from a patient who was rapidly improving under treatment; indeed, he might be placed in the second stage of the disease but for the fact that a former count was made while he was having marked hectic fever. The leucocytes were usually increased in number, giving a leucocytosis of from 247,000 in a very rapidly progressing case, to 10,080. Five patients gave a leucocyte count below 10,000; 8,480, 7,600. 7,600 to 9,600, and 6,733, respectively. The polymorphonuclear cells were usually above 80 per cent., varying from 97.6 per cent. to 80 per cent. In five instances these cells formed less than 80 per cent of the entire number of the leucocytes, varying from 78.8 per cent. to 69 per cent. The eosinophile cells were usually absent from the blood of those cases that proved fatal. The hemoglobin varied from 95 per cent. in a patient who was improving on treatment, to 35 per cent. A rise in the hemoglobin percentage was usually noted just before death, and was attributed to the sluggishness of the peripheral circulation as the end approached.

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* Read before the Philadelphia County Medical Society.

[1] E. Grawitz: Deutsche med. Woch., 1893, No. 51, p. 1374.

In the case of a patient who failed rapidly and who died about forty-three days after admission, the erythrocytes numbered 3,800,000, 3,820,000, 3,020,000, and the day before death, 4,600,000. In this patient the leucocytes were always below 10,000; 7,600, 7,000, 6,300, rising the day before death to 9,600. The hemoglobin varied from 50 per cent., 55 per cent., 55 per cent. to 85 per cent. the day before death. The percentage of polymorphonuclear cells was 77.2 per cent., 80 per cent., 78.8 per cent. and 80 per cent., respectively. When the blood was first counted, there was 0.4 per cent. of eosinophiles, but twenty-four days later these elements had disappeared and were not again found in the peripheral blood.

COMPLICATIONS.

The series of cases comprising this study contains two cases of pulmonary hemorrhage, six cases of albuminuria, two cases of tuberculous diarrhea, five cases of pleurisy and one case of asthma.

HEMORRHAGE.

One patient (11) had been spitting blood for two weeks and had had two distinct hemorrhages, the last one a few days before the blood examination was made. The hemoglobin suffered a marked reduction (55 per cent.); the erythrocytes numbered 5,220,000; there was no leucocytosis (8,480). There were no nucleated erythrocytes, and the differential count showed nothing abnormal.

The second patient (23) had two hemorrhages on May 25. May 28 his hemoglobin was 55 per cent.; there was a leucocytosis of 15,800, but the erythrocytes numbered 4,380,000. The lymphocytes were reduced to 7 per cent., and there were 14.4 per cent. of transitional forms. The man had a third hemorrhage on May 30, and two days later the erythrocytes numbered 3,430,000, there was a leucocytosis of 20,700, and the hemoglobin was reduced to 55 per cent. There were no nucleated erythrocytes.

ALBUMINURIA.

Albuminuria seems to have little if any influence on the blood picture. Of the six cases (3, 10, 13, 16, 18, 20) in which this complication was noted, the erythrocytes varied from 6,710,000 to 2,890,000. The leucocytes varied from 24,240 to 7,600. The hemoglobin varied from 37 per cent. to 90 per cent. The polymorphonuclear cells formed more than 80 per cent. of the total number of leucocytes except in two instances. Eosinophile cells were absent from the peripheral blood in all except two instances.

TUBERCULOUS DIARRHEA.

Two patients (3 and 9) suffered from tuberculous diarrhea. In both of these patients the erythrocytes were reduced and the leucocytes were increased in number; the hemoglobin was markedly reduced and the polymorphonuclear cells formed more than 80 per cent. of the total number of leucocytes.

PLEURISY.

Of the five cases (3, 12, 16, 22, 25) of pleurisy, the most constant feature of the blood examination was the leucocytosis. One patient (16) did not show the reaction, his leucocytes only numbering 8,100. In the others the leucocytes varied from 10,600 to 34,000. The polymorphonuclear cells constituted the bulk of the leucocytes in these cases.

Case 24 presented non-tuberculous cavities in the posterior portions of both lungs. This patient's blood count was as follows: erythrocytes, 4,750,000; leucocytes, 15,400; hemoglobin, 70 per cent. The polymorphonuclear cells formed 81.2 per cent. of the leucocytes and there were 1.8 per cent. eosinophiles.

IODOPHILIA.

I did not succeed in demonstrating the iodin reaction in any of my specimens. Locke[2] has found this reaction absent in uncomplicated tuberculosis, but DaCosta[3] has found it present in septic cases.

EOSINOPHILIA.

As the study progressed, my attention was attracted by the fact that eosinophile cells were not to be found in many of the specimens, and it soon became apparent that the cases in which these cells were absent were fatal ones. There are five exceptions to this, however. Case 9 at the time of examination showed 0.4 per cent. of eosinophiles and he is known to have died, although how long after the examination I am unable to say. Case 12 showed 0.8 per cent. eosinophiles four weeks before death; but when a second examination was made, two weeks before death, no eosinophile cells were present. Case 17 showed 0.4 per cent. eosinophiles forty-two days before death, but examinations made seventeen, six and one day before death showed absence of eosinophiles. Case 24 showed 1.8 per cent. eosinophile cells, and the patient died after a surgical operation for the drainage of non-tuberculous pulmonary cavities.

Cases 6, 7 and 10 showed absence of eosinophiles when the blood was examined, but these patients left the hospital and their fate is unknown.

Cases 25 and 26 were under treatment, which apparently produced much improvement in the physical conditions of the patients. In these patients the eosinophiles increased as improvement progressed; in 25 rising from 0.2 on the first examination to 1.6 per cent. on the second; in 26 rising from 1.6 per cent. to 3 per cent.

I am inclined to believe that the presence or absence of eosinophiles in the peripheral blood of tuberculous patients, is a sign of some prognostic significance. Levaditi[4] makes the following statement: "Tuberculin, among the bacterial products, appears to have eosinophilous properties. Jürgens has already shown in tuberculous patients who succumbed in the course of treatment with tuberculin, an increase of the number of white cells of the blood. Tschistowitch, Grawitz, Bischoff and Botkin examined the blood during life and discovered quantities of eosinophiles much above normal. This oxyphilia appeared also, according to the more recent statements of Bettman, in the course of the treatment of tuberculosis with tuberculin and with cinnamic acid." Zappert[5] also found an increase of eosinophile cells after injections of tuberculin; but in four out of eight cases of pulmonary tuberculosis these cells were reduced in number, and in another of the eight cases they were absent. There is no note as to the ultimate fate of these five patients.

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[2] Edwin A. Locke: Boston Med. and Surg. Jour., Sept. 11, 1902.

[3] John C. DaCosta, Jr.: Clinical Hematology, 1901.

[4] C. Levaditi: Le Leucocyte et ses Granulations, Paris, October, 1902, p. 117.

Claude and Aly-Zaky[6] say that treatment of experimental tuberculosis in guinea-pigs produced changes in the blood formula as seen in control animals. In those animals in which treatment has resulted in deferring the fatal termination, the eosinophiles have been found increased, even as high as 12 per cent. in some cases, particularly in the period of initial reaction to the infection.

Cabot[7] says that in most cases associated with leucocytosis, eosinophiles are absent. They may be increased in cases with cavities in which possibly the individual inoculates himself with tuberculin manufactured in the cavities of his own lungs.

Brown[8] quotes Teichmüller's statement that an increase of the eosinophiles in the blood and in the sputum of tuberculous patients is a favorable prognostic sign. Brown himself agrees with the observation of Teichmüller that the percentage or absolute number of eosinophile cells present is of real value in the prognosis of tuberculosis. Teichmüller's[9] work was done on sputum which he stained by various methods, principally by eosin and methyl blue. He believes that in bad cases eosinophile cells are usually absent from the sputum, although an isolated cell may be found occasionally. He considers the study of the eosinophile cells in sputum an indispensable aid. It gives a method of estimating the resisting power of the patient, of determining the prognosis and of critically estimating the value of special therapy.

Ehrlich and Lazarus[10] account for the occurrence of a polymorphonuclear leucocytosis by the chemotactic influence of certain bacterial products. The neutrophile cells are the ones ordinarily drawn from their storehouse in the bone marrow by this chemotactic influence of substances circulating in the blood stream.

The majority of the bacterial products are positively chemotactic for the neutrophile cells, while only a few substances, among which tuberculin is included, according to the observations of the authors just quoted, are positively chemotactic for the eosinophile cells. The variation of the eosinophile cells in the circulating blood of tuberculous patients may be explained as follows: In cases of incipient tuberculosis eosinophile cells are present in the blood stream in about normal proportion, because there is not enough tuberculin manufactured in the lesions to produce a marked eosinophilia. When, however, the secondary infection with the organisms of suppuration occurs, the neutrophile cells are attracted by the chemotactic power of the products of their growth which circulate in the blood and the eosinophile cells are repelled, so that we find an excess of polymorphonuclear neutrophile cells in the peripheral blood. As the patient gradually becomes more saturated with the latter poisons and the fatal termination approaches, the eosinophiles progressively diminish in number and disappear from the peripheral blood. If, however, the progress of the case is influenced favorably by treatment, the symptoms of the secondary infection disappear and the chemotactic influence of the products of the pyogenic organisms is withdrawn, so that the tuberculin being produced in the lesions may exercise its chemotactic influence to attract the eosinophilous polymorphonuclear cells from the bone marrow into the blood stream.[11]

A summary of the cases follows:

Case 1.—W. T., aged 49 years, negro. March 3, 1902, 3:30 p. m.: Patient comatose, temperature 101.6. Erythrocytes, 4,437,500; leucocytes, 4,900; ratio, 1-905; hemoglobin, 95 per cent. Differential count, polymorphonuclears, 72.4 per cent.; lymphocytes, 16 per cent.; transitionals, 11.6 per cent.; eosinophiles, 0.0 per cent. Iodin reaction negative. Patient died two and a half hours after making blood examination.

Case 2.—C. K., aged 48 years, white. March 5, 1902, 3 p. m.: Temperature 98.4 per cent. Erythrocytes, 5,890,000; leucocytes, 16,160; ratio, 1-364; hemoglobin, 90 per cent. Differential count, polymorphonuclears, 78.8 per cent.; lymphocytes, 12.2 per cent.; transitionals, 7.8 per cent.; eosinophiles, 1.2 per cent. Iodin reaction negative. Discharged from hospital.

Case 3.—T. B., aged 46 years, white. History: Cough and expectoration for eight months. Diarrhea for seven weeks. Nine stools a day. Cavity at right apex. Right lung completely consolidated. Pleuritis extensive. Left lung many areas of consolidation. Appearance anemic. Much emaciated. Heart displaced to right by adhesions. Urine contained albumin and hyaline casts. March 17, 1902: Sputum contained tubercle bacilli, diplococci, streptococci, pus cells, alveolar epithelium. March 5, 1902, 4 p. m.: Temperature 102. Erythrocytes, 2,890,000; leucocytes, 24,240; ratio, 1-118; hemoglobin, 53 per cent. Differential count, polymorphonuclears, 88.8 per cent.; lymphocytes, 4 per cent.; transitionals, 7.2 per cent; eosinophiles, 0.0 per cent. Iodin reaction negative. March 14, 1902, 3:30 p. m.: Temperature 100. Erythrocytes, 3,200,000; leucocytes, 20,240; ratio, 1-158; hemoglobin, 37 per cent. Differential count, polymorphonuclears, 87.2 per cent.; lymphocytes, 6.6 per cent.; transitionals, 6.2 per cent.; eosinophiles, 0.0 per cent. Iodin reaction negative. Died March 20, 1902.

Case 4.—E. M., aged 72 years, white. History: Patient has been in the tuberculosis ward for a long time. Has a very slow tuberculous process. March 10, 1902, 2:30 p. m.: Temperature, 98. Erythrocytes, 5,260,000; leucocytes, 14,800; ratio, 1-355; hemoglobin, 90 per cent. Differential count, polymorphonuclears, 80.4 per cent.; lymphocytes, 8 per cent.; transitionals, 10.4 per cent.; eosinophiles, 1.2 per cent. Iodin reaction negative. May 8, 1902: Erythrocytes, 4,720,000; leucocytes, 11,500; ratio, 1-410; hemoglobin, 85 per cent. Differential count, polymorphonuclears, 77 per cent.; lymphocytes, 17 per cent.; transitionals, 3 per cent.; eosinophiles, 3 per cent. Iodin reaction negative.

Case 5.—B. McS., aged 42 years, white. History: Patient has been in the wards of the Philadelphia Hospital several times. Has frequent asthmatic paroxysms. March 10, 1902, 3:30 p. m.: Temperature 98.4 during an asthmatic paroxysm. Erythrocytes, 4,520,000; leucocytes, 29,760; ratio, 1-151; hemoglobin, 83 per cent. Differential count, polymorphonuclears, 80.8 per cent.; lymphocytes, 13.6 per cent.; transitionals, 2.6 per cent.; eosinophiles, 3 per cent. Iodin reaction negative. April 14, 1902, 3:30 p. m.: Patient recovered from his asthmatic attacks, is out of bed every day, and goes out into the yard.

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[5] Zappert: Zeit. f. klin. Med., vol. xxiii, 1893.

[6] H. Claude and Aly-Zaky: Gaz. Heb. de Méd. et de Chirur., May 15, 1902.

[7] Richard C. Cabot: A Guide to the Clinical Examination of the Blood for Diagnostic Purposes. Fourth edition, 1901.

[8] Thomas R. Brown: Med. News, June 13, 1903.

[9] W. Teichmüller: Deutsch. Archiv f. klin. Med., vol. lx, pp. 579 and 63.

[10] P. Ehrlich and A. Lazarus: Histology of the Blood, Normal and Pathological. Vol. viii, Nothnagel's specielle Pathologie und Therapie. English Translation by W. Myers, Cambridge, 1900.

[11] In addition to those already mentioned I have consulted the following authors: L. Appelbaum: Berl. klin. Woch., Jan. 6, 1902. Martin L. Stevens: Med. Rec., July 26, 1902. Alfred C. Coles: The Blood; How to Examine and Diagnose Its Diseases, London, 1902. Rud. R. v. Limbeck: The Clinical Pathology of the Blood; English Translation by Arthur Latham and John Nachbar, New Sydenham Society, 1901. H. Strauss and R. Rohnstein: Die Blutzusammensetzung bei den verschiedenen Anäm., Berlin, 1901.

Temperature, 99; pulse, 92; respiration, 22. Erythrocytes, 4,610,000; leucocytes, 14,500; ratio, 1-318; hemoglobin, 80 per cent. Differential count, polymorphonuclears, 78 per cent.; lymphocytes, 12.4 per cent.; transitionals, 8.6 per cent.; eosinophiles, 1 per cent. Iodin reaction negative. Patient was finally discharged improved and was readmitted during the winter of 1902-03 for the same condition.

Case 6.—G. S., aged 41 years, white. History: Cavity formation. March 10, 1902, 4:30 p. m.: Temperature 99.8. Erythrocytes, 4,210,000; leucocytes, 11,120; ratio, 1-378; hemoglobin, 63 per cent. Differential count, polymorphonuclears, 80.2 per cent.; lymphocytes, 10.2 per cent.; transitionals, 9.6 per cent.; eosinophiles, 0 per cent. Iodin reaction negative. Patient refused to remain in the hospital.

Case 7.—H. T., aged 32 years, black. History: Cavity formation at right apex. March 12, 1902, 3:15 p.m.: Temperature 100.4. Erythrocytes, 3,730,000; leucocytes, 10,080; ratio, 1-370; hemoglobin, 35 per cent. Differential count, polymorphonuclears, 89.2 per cent.; lymphocytes, 6.6 per cent.; transitionals, 4.2 per cent.; eosinophiles, 0 per cent. Iodin reaction negative. Patient left the hospital of his own accord.

Case 8.—W. M. G., aged 47 years, white. History: Cavity formation both apices. March 12, 1902, 4:00 p. m.: Temperature, 100.2. Erythrocytes, 3,580,000; leucocytes, 20,240; ratio, 1-176; hemoglobin, 35 per cent. Differential count, polymorphonuclears, 76 per cent.; lymphocytes, 18 per cent.; transitionals, 5 per cent.; eosinophiles, 1 per cent. Iodin reaction negative. Patient subsequently left the hospital.

Case 9.—W. B., aged 34 years, white. History: Patient has been sick for 14 months complaining of cough, night sweats, loss of flesh and diarrhea. Six stools daily. Much expectoration. Consolidation of both apices with cavity formation. March 19, 1902: Sputum shows tubercle bacilli, cocci, alveolar epithelium and pus cells. 2:30 p. m., temperature 101. Erythrocytes, 4,240,000; leucocytes, 13,440; ratio, 1-315; hemoglobin, 42 per cent. Differential count, polymorphonuclears, 88.8 per cent.; lymphocytes, 6 per cent.; transitionals, 4.8 per cent.; eosinophiles, 0.4 per cent. Iodin reaction negative. Patient died.

Case 10.—W. T., aged 30 years, black. History: Patient has been sick 2½ months suffering from dyspnea, cough and expectoration. Consolidation of both apices. Albuminuria. History of chills and fever 2½ years ago. March 19, 1902, 3:30 p. m.: Temperature 97.8. Erythrocytes, 3,680,000; leucocytes, 23,760; ratio, 1-154; hemoglobin, 90 per cent. Differential count, polymorphonuclears, 85.4 per cent.; lymphocytes, 10.8 per cent.; transitionals, 3.8 per cent.; eosinophiles, 0 per cent. Iodin reaction negative. Patient left hospital.

Case 11.—D. W., aged 20 years, black. History: Complains of cough and expectoration of 4 months' duration with paroxysmal diarrhea and night sweats. Two weeks ago began to spit up blood, and has had 2 distinct hemorrhages. No chest pain. Consolidation at right apex. March 21, 1902. Sputum examination shows tubercle bacilli, pus cells and few cocci. 2:30 p. m., temperature 100. Erythrocytes, 5,220,000; leucocytes, 8,480; ratio, 1-615; hemoglobin, 55 per cent. Differential count, polymorphonuclears, 73.2 per cent.; lymphocytes, 20.4 per cent.; transitionals, 5.4 per cent.; eosinophiles, 1 per cent. Iodin reaction negative. Patient discharged improved.

Case 12.—R. C., aged 23 years, white. History: Influenza in February, 1902; this was followed by night sweats, cough at night and expectoration. Consolidation at right apex, no cavity. March 28, 1902: Sputum showed tubercle bacilli. 3:30 p. m., temperature, 99; pulse, 130; respiration, 26. Erythrocytes, 4,600,000; leucocytes, 20,480; ratio, 1-224; hemoglobin, 57 per cent. Differential count, polymorphonuclears, 85.2 per cent.; lymphocytes, 8.4 per cent.; transitionals, 5.6 per cent.; eosinophiles, 0.8 per cent. Iodin reaction negative. April 7, 1902, 3:00 p. m.: Temperature, 98.4; pulse, 124; respiration, 24. Consolidation of right apex; no cavity could be made out. Erythrocytes, 4,140,000; leucocytes, 25,600; ratio, 1-161; hemoglobin, 56 per cent. Differential count, polymorphonuclears, 91.8 per cent.; lymphocytes, 6 per cent.; transitionals, 2.2 per cent.; eosinophiles, 0 per cent. Iodin reaction negative. April 21, 1902: Diaphragmatic pleurisy developed, and patient died April 22.

Case 13.—P. M., aged 32 years, white. History: Complains of night sweats, cough and expectoration. Urine contains albumin. He was treated in the Pennsylvania Hospital from February 7 to March 19, 1902. Examination of sputum on February 8 showed cocci, but no tubercle bacilli; on February 14 tubercle bacilli were found. March 31, 1902, 3:00 p. m.: Temperature, 99; pulse, 80; respiration, 36. Erythrocytes, 4,620,000; leucocytes, 7,600; ratio, 1-607; hemoglobin, 73 per cent. Differential count, polymorphonuclears, 82.8 per cent.; lymphocytes, 14 per cent.; transitionals, 2.8 per cent.; eosinophiles, 0 per cent. Iodin reaction negative. April 14, 1902, 2:45 p. m.: Temperature, 99; pulse, 80; respiration, 24. Erythrocytes, 4,200,000; leucocytes, 10,200; ratio, 1-411; hemoglobin, 90 per cent. Differential count, polymorphonuclears, 77.6 per cent.; lymphocytes, 18.8 per cent.; transitionals, 3.2 per cent.; eosinophiles, 0 per cent. Iodin reaction negative. Patient died.

Case 14.—J. K., aged 44 years, white. History: Has had a cavity at the right apex for a number of years. The disease is non-progressive. March 31, 1902: Sputum contains tubercle bacilli and cocci. 4:00 p. m.: Temperature, 98; pulse, 84; respiration, 32. Erythrocytes, 4,440,000; leucocytes, 7,100; ratio, 1-625; hemoglobin, 75 per cent. Differential count, polymorphonuclears, 70.4 per cent.; lymphocytes, 20.4 per cent.; transitionals, 7.2 per cent.; eosinophiles, 2 per cent. Iodin reaction negative. Patient left the hospital improved, but still retaining the symptoms and signs of a cavity.

Case 15.—J. H., aged 33 years, white. History: Complains of cough, expectoration and great debility of 9 weeks' duration. Both apices involved; cavity at right apex; pneumonic area at left base. No diarrhea. April 15, 1902: Sputum contains tubercle bacilli and cocci. 2:30 p. m.: Temperature, 100.2; pulse, 150; respiration, 50. Erythrocytes, 4,200,000; leucocytes, 247,000; ratio, 1-17; hemoglobin, 60 per cent. Differential count, polymorphonuclears, 97.6 per cent.; lymphocytes, 2 per cent.; transitionals, 0.4 per cent.; eosinophiles, 0 per cent. Iodin reaction negative. Patient died at 2 a. m., April 16.

Case 16.—S. F., aged 29, black. History: Has been sick for 2 years. There is a cavity at the left apex; an area of consolidation at the right apex; pleuritis at both bases. General bronchitis, albuminuria, edema of the feet and laryngitis. No diarrhea. April 18, 1902: Sputum contains tubercle bacilli. 2:30 p. m., temperature, 102.4; pulse, 100; respiration, 22. Erythrocytes, 3,120,000; leucocytes, 8,100; ratio, 1-385; hemoglobin, 55 per cent. Differential count, polymorphonuclears, 87 per cent.; lymphocytes, 8 per cent.; transitionals, 5 per cent.; eosinophiles, 0 per cent. Iodin reaction negative. Patient died April 22.

Case 17.—E. F., aged 19 years, black. History: Patient has been sick for 3 months. Complains of cough, expectoration and chest pains. No diarrhea. Both apices involved; cavity of the right apex. April 21, 1902, 3:00 p. m.: Temperature, 102.6; pulse, 84; respiration, 44. Erythrocytes, 3,800,000; leucocytes, 7,600; ratio, 1-500; hemoglobin, 50 per cent. Differential count, polymorphonuclears, 77.2 per cent.; lymphocytes, 16 per cent.; transitionals, 6.4 per cent.; eosinophiles, 0.4 per cent. Iodin reaction negative. May 15, 1902. Patient has extensive pleuritis on right side. Bronchitis on both sides. 3:00 p. m.: Temperature, 101.4; pulse, 132; respiration, 34. Erythrocytes, 3,820,000; leucocytes, 7,000; ratio, 1-545; hemoglobin, 55 per cent. Differential count, polymorphonuclears, 80 per cent.; lymphocytes, 16.2 per cent.; transitionals, 4 per cent.; eosinophiles, 0 per cent. Iodin reaction negative. May 26, 1902: Patient is very weak and is confined to his bed. 3:30 p. m., temperature, 101.4; pulse, 132; respiration, 34. Erythrocytes, 3,020,000; leucocytes, 6,300; ratio, 1-479; hemoglobin, 55 per cent. Differential count, polymorphonuclears, 78.8 per cent.; lymphocytes, 19.2 per cent.; transitionals, 2 per cent.; eosinophiles, 0 per cent. Iodin reaction negative. June 1, 1902, 11:45 a. m.: Temperature, 98; pulse, 104; respiration, 28. Flow of blood sluggish. Patient very weak. Erythrocytes, 4,600,000; leucocytes, 9,600; ratio, 1-423; hemoglobin, 85 per cent. Differential count, polymorphonuclears, 80 per cent.; lymphocytes, 19.2 per cent.; transitionals, 0.8 per cent.; eosinophiles, 0 per cent. Iodin reaction negative. Patient died June 2.

Case 18.—J. P., aged 46 years, white. History: Complains of cough, hemorrhages, dyspnea and chest pain for 6 months. Involvement of both apices; cavity in posterior part of right apex. Hemorrhage on April 25, 1902. Has edema of the legs with albuminuria and casts. May 6, 1902, 2:30 p. m.: Temperature, 96.4; pulse, 108; respiration, 44. Erythrocytes, 4,010,000; leucocytes, 10,700; ratio, 1-375; hemoglobin, 75 per cent. Differential count, polymorphonuclears, 87.4 per cent.; lymphocytes, 7.4 per cent.; transitionals, 3.4 per cent.; eosinophiles, 1.8 per cent. Iodin reaction negative. Patient died.

Case 19.—A. R., aged 22 years, white, complains of cough and loss of strength of one year's duration. Consolidation of right apex and left base. May 8, 1902, 2 p. m.: Temperature, 101.6; pulse, 108; respiration, 40; erythrocytes, 4,280,000; leucocytes, 6,733; ratio, 1-635; hemoglobin, 70 per cent. Differential count, polymorphonuclears, 81.2 per cent.; lymphocytes, 12.4 per cent.; transitionals, 6.4 per cent; eosinophiles, 0 per cent. Iodin reaction negative. Died May 16, 1902.

Case 20.—W. C., aged 29 years, black. History: Complains of cough of 12 years' duration. Night sweats and free expectoration. Signs of cavity at right apex. No tubercle bacilli found, however. Sputum contains many cocci and elastic tissue. Urine contains a trace of albumin. May 13, 1902, 3:00 p. m.: Temperature, 98.6; pulse, 92; respiration, 24. Erythrocytes, 6,710,000; leucocytes, 12,400; ratio, 1-541; hemoglobin, 72 per cent. Differential count, polymorphonuclears, 73.6 per cent.; lymphocytes, 20.6 per cent.; transitionals, 5.4 per cent.; eosinophiles, 0.4 per cent. Iodin reaction negative. Patient left the hospital.

Case 21.—R. W., aged 35 years, white. History: Has had a cough for one year. Hemorrhage 7 months ago. Has locomotor *ataxia*. Cavity at right apex. Left lung not involved. May, 26, 1902, 2:30 p. m.: Temperature, 99.6; pulse, 120; respiration, 30. Erythrocytes, 5,240,000; leucocytes, 23,500; ratio, 1-223; hemoglobin, 85 per cent. Differential count, polymorphonuclears, 69 per cent.; lymphocytes, 22.6 per cent.; transitionals, 8 per cent.; eosinophiles, 0.4 per cent. Iodin reaction negative.

Case 22.—W. R., aged 38 years, white. History: Complains of cough and loss of flesh of 6 months' duration. Cavity at right apex, extensive pleuritis at left base posteriorly. Slight bronchitis. May 27, 1902: Sputum contains pus, epithelium, mucus, tubercle bacilli, diplococci, streptococci and bacilli. 11:45 a. m., temperature, 98.4; pulse, 108; respiration, 28. Erythrocytes, 5,420,000; leucocytes, 34,000; ratio, 1-156; hemoglobin, 65 per cent. Differential count, polymorphonuclears, 93.4 per cent.; lymphocytes, 3.6 per cent.; transitionals, 2.8 per cent.; eosinophiles, 0.2 per cent. Iodin reaction negative.

Case 23.—F. C., aged 44 years, black. History: Complains of cough and the expectoration of blood. Had two hemorrhages on May 25 and has expectorated blood since. No night sweats, no diarrhea. Signs of cavity at left apex. May 28, 1902: Sputum contains alveolar epithelium, pus, red blood corpuscles, cocci and bacilli. No tubercle bacilli found. 11:30 a. m., temperature, 98; pulse, 80; respiration, 20. Erythrocytes, 4,380,000; leucocytes, 15,800; ratio, 1-277; hemoglobin, 55 per cent. Differential count, polymorphonuclears, 78 per cent.; lymphocytes, 7 per cent.; transitionals, 14.4 per cent.; eosinophiles, 0.6 per cent.; no nucleated red cells. Iodin reaction negative. Patient had a hemorrhage on May 30, 1902. June 1, 1902, 10:40 a. m.: Temperature, 100.2; pulse, 80; respiration, 24. Erythrocytes, 3,430,000; leucocytes, 20,700; ratio, 1-165; hemoglobin, 55 per cent. Differential count, polymorphonuclears, 70 per cent.; lymphocytes, 20.8 per cent.; transitionals, 7.6 per cent.; eosinophiles, 1.6 per cent. Iodin reaction negative.

Case 24.—M. G., aged 21 years, white. History: Cavity diagnosed in posterior portion of left lung. Expectorates large quantities of foul-smelling material when he lies on his right side. Sputum contains cocci and bacilli, but no tubercle bacilli. An operation was done and a large pulmonary cavity was drained. At autopsy, the lower lobe of the left lung was found to contain a large number of cavities which contained a reddish material and which were due to the dilation of the bronchi. A similar condition was found in the posterior portion of the right lung. June 3, 1902, 11:30 a. m.: Erythrocytes, 4,750,000; leucocytes, 15,400; ratio, 1-308; hemoglobin, 70 per cent. Differential count, polymorphonuclears, 81.2 per cent.; lymphocytes, 16.6 per cent.; transitionals, 0.4 per cent.; eosinophiles, 1.8 per cent. Iodin reaction negative. Patient died.

Case 25.—A. A., aged 32 years, black. History: Illness of one year's duration. Complains of cough, expectoration, loss of weight, chest pain and night sweats. Dullness all over left chest with pleural frictions both in front and behind. Beginning cavity formation above left clavicle. Sputum contains tubercle bacilli. December 2, 1902, 3:30 p. m. Erythrocytes, 4,410,000; leucocytes, 15,200; ratio, 1-290; hemoglobin, 75 per cent. Differential count, polymorphonuclears, 81.6 per cent.; lymphocytes, 15.4 per cent.; transitionals, 2.8 per cent.; eosinophiles, 0.2 per cent. Iodin reaction negative. Jan. 3, 1903: Erythrocytes, 5,710,000; leucocytes, 10,600; ratio, 1-538; hemoglobin, 95 per cent. Differential count, polymorphonuclears, 58.6 per cent.; lymphocytes, 31.8 per cent.; transitionals, 7.2 per cent.; eosinophiles, 1.6 per cent.; myelocytes, 0.8 per cent. Iodin reaction negative. Cavity formation, on above date, had extended to third rib. Patient subsequently discharged from the hospital.

Case 26.—C. D., aged 38 years, white. History: Patient has been sick for 2 weeks with nausea, loss of appetite, pain in the abdomen, constipation, cough, expectoration and slight fever. Small area of consolidation at posterior portion of right apex, between the root of the neck and the spine of the scapula. Sputum contained tubercle bacilli. December 2, 1902, 3:30 p. m. Erythrocytes, 3,980,000; leucocytes, 10,000; ratio, 1-398; hemoglobin, 70 per cent. Differential count, polymorphonuclears, 67.6 per cent.; lymphocytes, 29.0 per cent.; transitionals, 1.8 per cent.; eosinophiles, 1.6 per cent. Iodin reaction negative. Jan. 3, 1902: Erythrocytes, 4,580,000; leucocytes, 16,600; ratio, 1-276; hemoglobin, 82 per cent. Differential count, polymorphonuclears, 62.6 per cent.; lymphocytes, 25.4 per cent.; transitionals, 8.9 per cent.; eosinophiles, 3 per cent.; myelocytes, 1 per cent. Iodin reaction negative. Patient left the hospital very much improved.

CONCLUSIONS.

1. The blood picture in pulmonary tuberculosis is not constant, and the conditions described by Grawitz[1] are by no means absolute. As can be seen by reference to the detailed results of the different examinations, there are cases in each of the three stages of the disease that are quite out of the limits of cellular and hemoglobin content described by him.

2. Omitting the exceptional cases from consideration, however, the average case in the first stage of the disease presents a slightly reduced number of erythrocytes, a moderate reduction of the hemoglobin and about a normal number of leucocytes. The average case in the second stage presents a varying degree of leucocytosis, due to an increase in the number of polymorphonuclear, neutrophile cells. The erythrocytes are present in about normal numbers, and the hemoglobin is often normal in percentage. The average cases in the third stage will show a reduction in the number of erythrocytes, a moderate leucocytosis composed of the polymorphonuclear, neutrophile cells and a high hemoglobin percentage.

3. Hemorrhage is usually followed by a marked reduction in hemoglobin, a slight reduction in the number of

erythrocytes. Leucocytosis is not an invariable feature of a post-hemorrhagic blood.

4. Albuminuria of itself appears to cause no constant change in the blood picture.

5. Tuberculous diarrhea is apparently attended by a reduction of the number of the erythrocytes and of the percentage of hemoglobin and by an increase of the leucocytes. The latter increase is due to the polymorphonuclear, neutrophile cells.

6. Pleurisy is usually accompanied by a polymorphonuclear, neutrophile leucocytosis.

7. There is no distinctive blood picture that will serve to differentiate between extensive cavity formation due to tuberculous degeneration and that due to other causes. Further, leucocytosis is not a constant feature of cavity formation.

8. The leucocytosis occurring in the course of pulmonary tuberculosis is due to an increase of the polymorphonuclear elements and not to an increase of the lymphocytes or of the transitional cells.

9. The absence of the eosinophile cells from the blood may be looked on as an unfavorable prognostic sign. The increase of these cells while the patient is under treatment may be taken as an indication that the progress of the disease has a tendency to become arrested.

THE PRESENT CONCEPTION OF THE PERIRENAL FASCIA

AND ITS RÔLE IN FIXATION OF THE KIDNEY.

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The introduction of cross sections into anatomic work has simplified to a marked degree the study of the fasciæ of the different regions of the body, and as a result we have at the present time accurate accounts of their osteal, muscular, vascular and visceral relations. Those fasciæ which are of the greatest surgical importance have received the greatest amount of attention, and the descriptions given of the cervical, axillary and pelvic fasciæ are fairly uniform. The fascia surrounding the kidney has not received the amount of attention that it deserves, and in the majority of text-books on anatomy and surgery no mention is made of it. In monographs devoted to renal anatomy and surgery, considerable space is given to the description of this fascia and the rôle that it plays in kidney fixation, but many who are interested in kidney work do not have access to these works, and of necessity remain unfamiliar with the attachments and visceral relations of the perirenal fascia.

The descriptions of this fascia that have been given vary considerably. These variations are dependent partly on actual variation of the fascia and partly on the methods employed in the investigation. With the introduction of improved technic for the preparation of cross sections, the descriptions have become much more uniform. It is hardly possible to conceive of the amount of patient study that has been devoted by a few investigators to this fascia, without giving the history of some of the earlier descriptions. The time at which a fatty capsule can be found surrounding the kidney and the part that it assumes in maintaining the kidney in its normal position, have not been definitely settled. An attempt will be made to give some of the late views concerning this subject.

THE PERIRENAL FASCIA.

Zuckerkandl first described, posterior to the fatty capsule of the kidney, a layer of fascia, which he considered to be derived from the lateral abdominal wall.[1] It is found anterior to the aponeurosis of the quadratus lumborum muscle, to which it is attached by fascial bands. If this fascia is traced toward the median line, it will be found to become continuous with the fibrous capsule of the kidney along its medial margin. Zuckerkandl did not describe any fascia passing over the anterior surface of the kidney, but states that after removal of the peritoneum an outer kidney capsule is found, which may become so condensed in emaciated subjects as to resemble a fascia.

Sappey[2] states that the kidney is surrounded by a fatty capsule and a fibrous sheath. This fibrous covering is derived from the subperitoneal fascia, which divides as it approaches the lateral margin of the kidney into an anterior and a posterior lamella. These two fascial lamellæ are attached to the fibrous capsule at the medial margin of the kidney and unite at its upper pole. The adrenal is excluded by this union from the special fascial compartment of the latter organ.

Nicolas[3] describes a fatty capsule, which surrounds the kidney on its anterior and posterior surfaces. The kidney is thus completely surrounded by fat, which is reflected at the hilus of the organ on the renal vessels.

Charpy[4] assigns to the fascia renalis an important rôle in maintaining the kidney in its normal position. He agrees with the other investigators in considering the fascia to be derived from the subperitoneal fascia, and describes the posterior and anterior layers as becoming continuous with the fibrous capsule of the kidney at its medial margin. From the point of attachment of the anterior layer of fascia to the fibrous capsule, a fascia is given off, which passes across the prevertebral vessels to become continuous with the corresponding fascia of the opposite side. According to this anatomist, intra-abdominal pressure and the peritoneum play an important secondary part in kidney fixation.

All the above descriptions differ somewhat as to the attachments of the layers of the perirenal fascia, and one makes no mention of a constant anterior layer. The latest description, as given by Gerota,[5] differs from all the preceding, and his findings can be verified on examination of cross sections passing through the region of the kidney. He agrees, however, with Sappey and Charpy as to the origin of this fascia. In the accompanying figures the origin and distribution of the fascia, as he has described it, can be easily seen.

As the subperitoneal fascia approaches the lateral margins of the kidneys, it divides into a prerenal and a retrorenal layer. The prerenal layer varies in consistency. In some cases it is quite firm and resistant, while in others it is represented by only a few strands of connective tissue. It covers directly the anterior surface of the kidney, and the fascial bands which are given off from it fuse with the kidney capsule proper. If this fascia is traced toward the median line, it will be found to pass anterior to the inferior vena cava and the abdominal aorta to become continuous with a corresponding fascia of the opposite side. This layer of fascia is so thin and varies so much in consistency that it is rather difficult to conceive that it alone could aid in the support of the kidney; but one must consider in this connection the

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[1] Zuckerkandl: Ueber den Fixations apparat der Nieren, Gratz, 1882.

[2] Sappey: Traité d'anatomie descriptive, 1889, vol. iv, p. 476.

[3] Nicolas: Organes génito-urinaires, Paris, 1888, p. 52.

[4] A. Charpy: Organes génito-urinaires, 1890, Toulouse, p. 22.

[5] Gerota: Beitrage zur Kenntniss des Befestigungs apparates der Niere. Archiv f. Anatomie u. Entwicklungs geschichte, 1895, pp. 265-82.

"fascia of fusion," to be described later, and the colon, which are intimately related to the anterior surface of the kidney.

The retrorenal fascia of Zuckerkandl lies posterior to the fatty capsule of the kidney and anterior to the aponeurosis of the quadratus lumborum and psoas muscles. Anteriorly it is connected to the fibrous capsule of the kidney by strong fascial bands. Its attachment to the aponeurosis of the quadratus lumborum and psoas muscles, posteriorly, is so firm that it is probably never detached. At the lateral margin of the psoas muscles a process is given off from this layer of fascia which passes into the base of the transverse process of the lumbar vertebræ. Medially to the psoas the fascia is attached to the lumbar vertebræ and to the anterior common ligaments of the spine. Gerota has found in some of his specimens a well-defined ligament, which passes off from the retrorenal layer of fascia to be attached to the fourth lumbar vertebra.

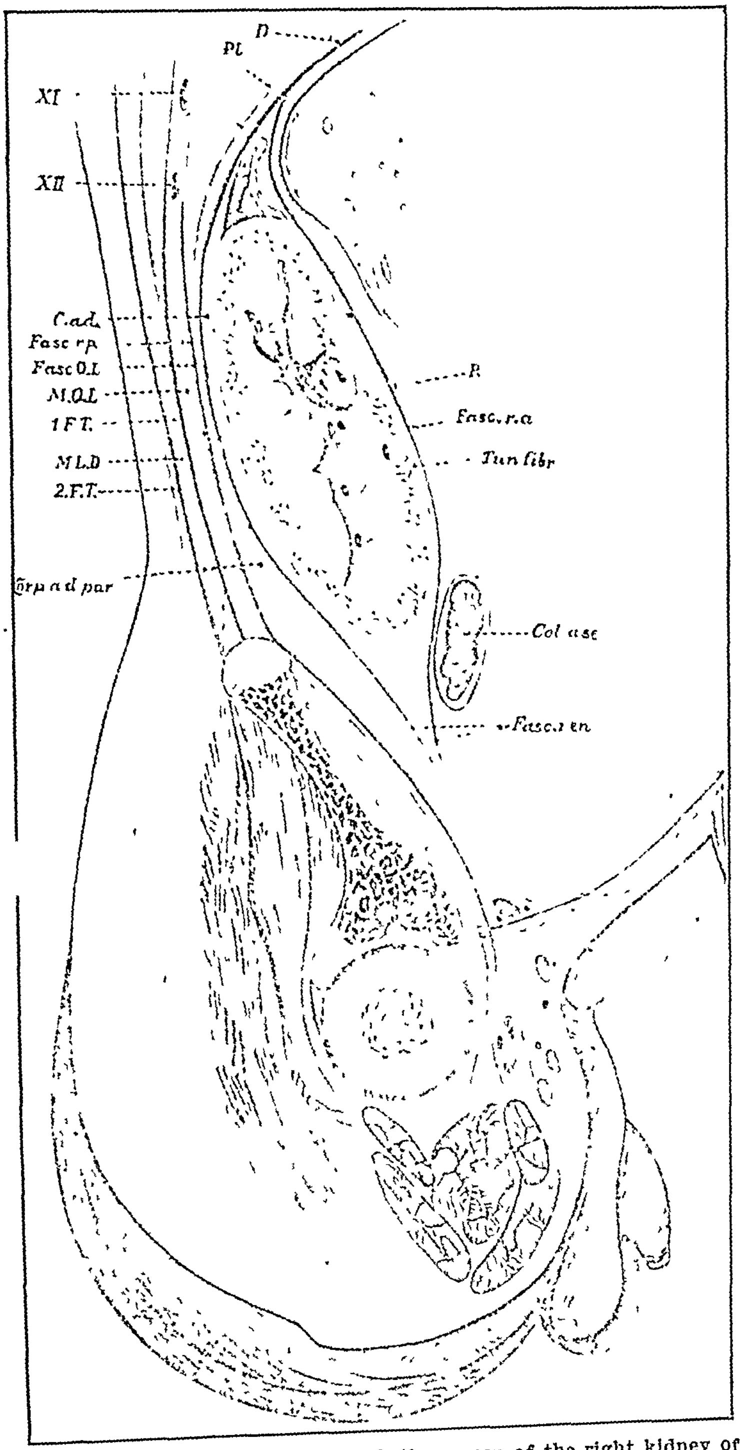

Fig. 1.—Sagittal section through the region of the right kidney of a child (after Gerota). D. Diaphragm. Pl. Parietal pleura. C. Ad. Fatty capsule of the kidney. XI. XII. Eleventh and twelfth ribs. Fasc. r. p. Retrorenal fascia. Fasc. Q. L. Proper fascia of quadratus lumborum (Gerota), or the anterior layer of lumbar fascia of the English. M. Q. L. Quadratus lumborum muscle. M. L. D. Long muscles of the back. 2 F. T. Corp. ad. par. Pararenal adipose body. P. Parietal peritoneum. Fasc. r. a. Prerenal fascia. Tun. fibr. Fibrous capsule of the kidney. Col. asc. Ascending colon. Fasc. ren. Both layers of renal fascia.

If tracings of the prerenal and retrorenal layers of the fascia are made in sagittal sections, the following arrangement will be found: These two layers fuse above and are attached to the diaphragm. They do not unite, as Sappey describes, at the upper pole of the kidney, thus excluding the adrenal from the special fascial compartment of the kidney. Below, these layers of fascia do not fuse, but gradually become lost in the fat and fascia of the iliac fossa. It will be seen from the above description that the kidney and adrenal are maintained in a fascial compartment. The retrorenal layer of fascia, being connected as it is by firm fascial bands with the fibrous capsule of the kidney anteriorly and with the aponeurosis of the quadratus lumborum and psoas muscles posteriorly, is a much more important factor in maintaining the kidney in its normal position than is the prerenal. These fascial bands may become relaxed and atrophic, and thus permit of displacement of the kidney within its fascial sheath.

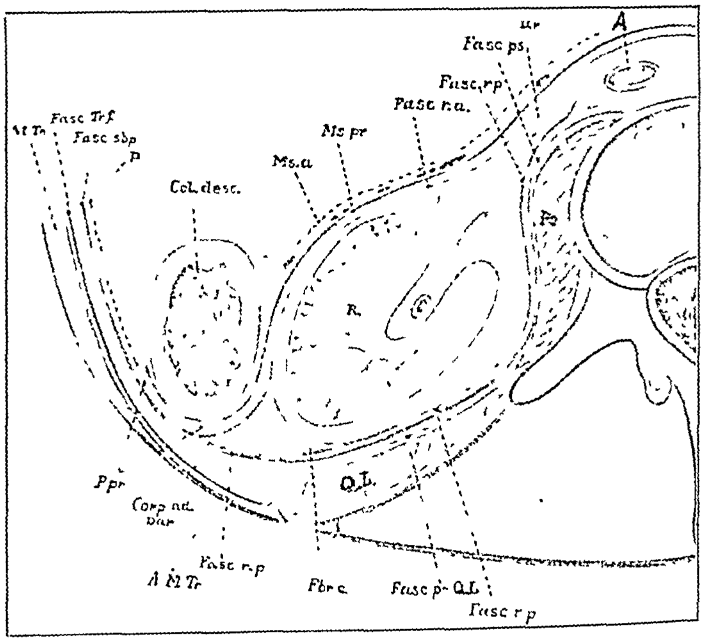

Fig. 2 —Cross section through the region of the left kidney (after Gerota). A. Abdominal Aorta. Ur. Ureter. Fasc. r. p. Retrorenal fascia of Zuckerkandl. Fasc. ps. Proper fascia of the psoas muscle. Fasc. r. a. Prerenal fascia. Ms. pr. Posterior (left) leaf of the primitive descending mesocolon. Ms. a. Anterior (right) leaf of the primitive descending mesocolon, the definitive parietal peritoneum. Col. desc. Descending colon. P. Parietal peritoneum. Fasc. tr. f. Fascia transversalis. M. tr. Transversalis muscle. P. pr. Original parietal peritoneum (dotted). Corp. ad. par. Pararenal fatty body. A. M Tr. Aponeurosis of origin of the transversalis muscle. Fbr. c. Fascial bundles at lateral margin of the kidney, connecting the prerenal and the retrorenal fasciæ. Q. L. Quadratus lumborum muscle. Fasc. pr. Q. L. Proper fascia of the quadratus lumborum muscle, or the anterior layer of lumbar fascia of the English. R. Kidney.

"FASCIÆ OF FUSION."

Anatomists are indebted to Toldt for their knowledge of the series of changes by which the primitive straight intestine of the embryo becomes the convoluted intestine of the adult. In the embryo the anterior surface of the kidney is covered by parietal peritoneum and the future colon occupies a median position, attached to the vertebral column by a long primitive mesocolon. The future colon undergoes a series of rotary changes, passing from right to left, so that, finally, the cecum lies in front of the lower pole of the right kidney and the descending colon covers two-thirds of the anterior surface of the left kidney. At this stage in embryonic life there will be found anterior to the left kidney three superimposed planes of peritoneum. These layers are the primitive parietal peritoneum and the two layers of the mesocolon. The two layers of the mesocolon fuse and later fusion with the parietal peritoneum occurs. As the result of this fusion a fascia is formed to which Toldt has given the name of "fasciæ of fusion." The definitive parietal peritoneum represents, then, the original mesocolon and the primitive peritoneum remains as a "fascia of fusion."

The extent to which the kidney is covered by the fascia depends on how great an area of the kidney is covered by the colon. On the left side two-thirds of the anterior surface of the kidney will be covered by the fascia, and on the right side only the lower pole. This fascia may not be found in all cases, for in 26 per cent. of the cases on the right side and 36 per cent. of the cases on the left, the formation of this fascia does not occur, and in these cases the ascending and descending colons retain their peritoneal folds as a distinct mesocolon, attaching them to the posterior abdominal wall.

THE FATTY CAPSULE OF THE KIDNEY AND THE PARARENAL ADIPOSE BODY.

Anatomists differ as to the time that the fatty capsule of the kidney develops, to what extent it covers the kidney, and as to how much of a factor it is in fixing this organ. It seems to be the general opinion that the fatty capsule attains its greatest development along the lateral margin of the kidney and its lower pole. At the medial margin of the kidney it becomes continuous with the fat of the renal sinus and is reflected along the ureter and spermatic vessels downward into the pelvis. In the majority of cases no fat will be found on the anterior surface of the kidney.

Sappey states that the fatty capsule does not appear until the eighth or tenth year. Gerota and Tuffier have found a fatty capsule present at a much earlier date. The former has found a well-defined fatty capsule during the first and second years of life, and the latter states that it is present in the new-born.

Tuffier[6] does not assign to the fatty capsule any part in the fixation of the kidney. In some exhaustive animal studies he has found that the kidney undergoes movements isochronic with the pulse beat (movement of expansion) and movements isochronic with the respiration (movement of translation). He believes that the fatty capsule aids these movements and considers it as quite comparable to the fat surrounding the bulb of the eye, the rectum and the bladder. Gerota states that a moderate deposit of fat may have some influence in rendering the fascial septa passing from the retrorenal fascia to the fibrous tunic of the kidney stronger and keeping them tense. Gerota suggests that the fatty mass occupying the triangular space between the quadratus lumborum, the psoas and the iliac crest be known as the "corpus adiposum pararenale." It is derived from the subperitoneal fat. Its position and extent are well shown in the accompanying figures. It lies between the retrorenal and transversalis fasciæ. In perinephritic processes ending in pus formation, these fatty bodies may exercise some influence on the gravitation of the pus. In case the fatty capsule of the kidney is affected, the pus will gravitate along the ureter and spermatic vessels into the pelvis. Pus arising from inflammation of the pararenal adipose body will discharge at Petit's triangle or burrow downward into the iliac fossa.

As recently suggested by Professor Keen, the pararenal adipose body and the retrorenal fasciæ are important guides in kidney surgery. After incision of the quadratus lumborum and the anterior layer of the lumbar fascia, the pararenal adipose body will be exposed. Just anterior to this will be found the dense, shining retrorenal fascia, which lies just posterior to the fatty capsule of the kidney.

Gerota has demonstrated in his work that the adrenal assists in maintaining the kidney in position. This is especially so in children. In experimenting on the cadaver of a child he found that a traction amounting to between 750 and 1,000 grams must be exerted before the adrenal and the kidney separate. In the adult the kidney becomes so much larger than the adrenal that the latter probably has no influence whatever.

The perirenal fascia may be regarded as the most important factor in maintaining the kidney in its normal position, but we should never lose sight of the fact, however, that the neighboring organs, peritoneum, fatty capsule and intra-abdominal pressure are important accessories.

Harris[7] and Andrews[8] were among the first to realize the full surgical significance of this fascia and its importance in kidney fixation. The former attempts, after the removal of the perirenal fat, to diminish, by suturing, the size of the fascial compartment in which the kidney lies. If the pouch is very large and the peritoneum bulges to the medial side of the colon, a small opening is made into the peritoneal cavity to the outer side of the colon and sutures are passed through the mesocolon from within. This layer is then approximated to the posterior abdominal wall, diminishing the size of the compartment. Care should be exercised to avoid injury of the arteria colica dextra or sinistra, as the case may be. As a final step in the obliteration of the compartment, the prerenal fascia is sutured to the lumbar fascia posterior to the line of incision through the abdominal wall. Andrews, in his "reefing" operation, splits the fatty capsule of the kidney longitudinally. The retrorenal fascia is supposed to be included within the fat. These two flaps are pulled out through the line of incision and retained in this position, while mattress sutures are passed through the muscles and tied. The fatty flaps thus lie outside of the incision and are retained in position by the pressure of the coapted cut surfaces. Andrews devised this operation because he found that the fascia and fat were too friable to retain sutures. Harris and Andrews have reported a series of cases, and the results obtained from their operations are good.

The good results obtained from the Senn method of gauze packing are dependent on the broad bands of adhesions forming between the lower pole of the kidney and the retrorenal fascia. If, after removal of the fatty capsule of the kidney, the retrorenal fascia were exposed and sutured directly into the fibrous capsule of the kidney, good and lasting results should be obtained. This direct suture could be most easily combined with the Senn method. Direct suture would certainly be more advantageous than any of those methods by which the kidney capsule is retained against the retrorenal fascia by sutures passed through the kidney parenchyma.

We can not depend on sutures to hold these two in apposition long enough to insure a reaction leading to the formation of adhesions.

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[6] Tuffier: La capsule adipeuse du rein au point de vue chirurgical. Revue de Chirurgie, 1890, p. 390.

[7] M. L. Harris: Movable Kidney—Its Cause and Treatment, The Journal A. M. A., June 1, 1901.

[8] E. W. Andrews: The Reefing Operation for Movable Kidney, The Journal A. M. A., Oct. 6, 1900, pp. 877-80.

THE VALUE OF AN INJURY.*

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We all understand that compensation is both an underlying law of nature and also the law of the country *in fixing the amount* of damages, and it may be said that in fixing the value, cost or price, as you may choose to term it, of any injury, the law of compensation is the guiding star by which the measure of damages in the instant case is to be determined. The difficulty in the situation is to apply the rule of compensation to each individual case as it arises. We are told by the law books that "compensation is the basic principle of the law of damages, the measure thereof being limited and controlled, and the elements of recovery primarily determined by this fundamental consideration." We are also told by the books that "there are frequently elements involved so wholly insusceptible of money valuation that the measure of recovery must be left largely, if not entirely, to the discretion of the jury. This is noticeably the case in actions for damages for personal injuries where physical suffering has resulted, and likewise where mental distress has been a consequence of the defendant's act."

When we remember how difficult it is to fix any sort of estimate on physical suffering, and how much more difficult it is to measure mental distress by the standard of a dollar, we realize the difficulty of discussing the subject in hand.

As I have already indicated, the jury generally fixes the price in such cases, and unless the verdict is so excessive or so grossly inadequate as to indicate passion, prejudice or corruption, it will generally be allowed to stand, though the courts presiding in such cases have always asserted and exercised the right of setting aside such verdicts as, in their judgment, are so wholly disproportionate to the injury suffered as to indicate passion, prejudice or corruption on the part of the jury.

While this is true, we are told, to use the language of legal books, that "In no other class of cases does the amount of damages rest necessarily so largely in the discretion of the jury as in those involving a recovery for the infliction of personal injuries, and the courts are very loath to interfere with a verdict in such cases in the absence of plain evidence that the jury have abused the discretion vested in them."

It must be patent in the outset to every thinking mind that the value or cost of all injuries must, in the nature of the case, be extremely relative. The loss of one's eyes would not mean the same in dollars and cents, at least, to the day laborer and to the accomplished surgeon. The loss of life itself would not mean the same in dollars and cents to the family of a young, vigorous man who gave promise of many years to live, and of a man earning the same salary whose age and infirmity was such as to render it certain that his labors were almost at an end.

At the risk of appearing a little tedious, I shall now call the attention of my auditors to a few cases which have "passed muster" in the courts of the country, in which verdicts for various elements of injury have been rendered, and the judgments entered thereon have been approved by the courts of last resort.

In the case of Morgan vs. Southern Pacific R. R. Company, decided by the Supreme Court of California, the plaintiff was a woman and the injury was permanent, amounting practically to total disability, and the verdict, which was for $15,000, was sustained.

In the case of Chicago vs. Leseth, decided by the Illinois Supreme Court, the plaintiff suffered from a displaced womb, resulting in permanent injury to health. The verdict was for $15,000 and was sustained by the court.

In the case of Bennet vs. New York Central R. R. Co., an $8,000 verdict, in a case of curvature of the spine, was sustained by the Supreme Court of New York.

In the case of International R. R. Co. vs. Mulliken, decided by the Supreme Court of Texas, $4,000 was held to be a reasonable verdict for "incurable spinal disease."

In the case of Osborne vs. Detroit, reported in "32d Federal Reporter," $10,000 was held to be a reasonable verdict for an injury resulting in paralysis of one-half of the body; and in the case of Bishop vs. St. Paul City R. R. Company, the Supreme Court of Minnesota held that $15,000 was a reasonable verdict for the same injury.

The Supreme Court of Wisconsin held, in the case of McMahon vs. Eau Claire Water Works Co., that $5,000 was not an unreasonable verdict in case of an injury causing "paresis or progressive paralysis."

A very interesting case will be found in "86th Georgia Reports," which is styled Georgia Pacific R. R. Co., vs. Dooley, in which a $16,000 verdict was upheld for an injury resulting in the "displacement and enlargement of the heart."

The case of Dieffenbach vs. New York Central R. R. Co., presents a case of a very severe injury, not necessarily permanent, and the plaintiff, who was a young man earning more than $4,000 a year, recovered a verdict of $25,000, which was allowed to stand.

There is a case recorded in the "78th Federal Reporter," where a $5,000 verdict was allowed to stand for an injury resulting in the "impairment of muscular sense, feeling and partial loss of hearing."

The total loss of vision was the result of an injury, for which suit was brought in the case of Stearns vs. Reidy, reported in "105th Illinois Reports," and a verdict of $9,000 was held to be reasonable.

A $14,000 verdict was sustained in the case of Wallace vs. Vacuum Oil Company, decided by the Supreme Court of New York, in which the injury is described as "the loss of eye and other serious injuries."

A verdict of $100 was sustained by the Supreme Court of New York for an injury described as "a black eye."

The loss of a leg was held to justify a verdict of $2,300 in the William Branfoot case, reported in "52d Federal Reports," and the loss of both legs was held to justify a $15,000 verdict by the courts of Arizona, a $13,000 verdict by the courts of Colorado, and a $25,000 verdict by the courts of Illinois. The difference in amounts in these cases doubtless depended on the different state of facts presented in each case. The loss of both legs to a common laborer, earning a dollar a day, would be a very different thing, when measured by dollars and cents, to the loss of a leg by a civil engineer whose salary was $10,000 per annum. The loss of a foot was held to justify a verdict of $9,000 by the Supreme Court of Georgia in the case of Georgia Railroad, etc., Co. vs. Keating; and a verdict of $11,000 by the Supreme Court of New York in the case of Jordan vs. New York Central R. R. Co., and in the case of Commerford vs. Atlantic Avenue R. R. Co., the Supreme

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* President's address before the American Academy of Railway Surgeons, Chicago, Oct. 1-2, 1903.

Court of New York sustained a verdict of $8,500 for the loss of several toes.

In the case of Chipman vs. Union Pacific Railroad Company, reported in "12th Utah Reports," the plaintiff was a child who had lost her foot and the recovery was $10,500, and the verdict was sustained.

In the case of the loss of an arm a $5,000 verdict was sustained in one case by the courts of Arkansas, an $8,000 verdict by the Supreme Court of Illinois, a $4,000 verdict by the Supreme Court of Iowa, and a $9,119 verdict was sustained by the Supreme Court of Texas in the case of Missouri, etc., R. R. Co. vs. Kirkland, while the Supreme Court of Wisconsin sustained a $10,000 verdict for the same injury.

The loss of a hand has been variously estimated by approved verdicts ranging from $1,250 to $5,000 in cases reported by various courts. The loss of fingers has been the prolific mother of many damage suits, and the verdicts have ranged all the way from a few hundred dollars to $8,500, which was the amount of the verdict in the case of Ridenhour vs. Kansas City Cable R. R. Co., in which case all the fingers on one hand were disabled.

For injuries resulting in death the verdicts which have been rendered and sustained by the courts of the country, in the nature of things, show the greatest possible variation, and it would serve no useful purpose to undertake to classify them. It would seem but natural that verdicts in such cases should run higher than in cases resulting in the loss of a limb, but it is a curious fact that such is not ordinarily the case, and the well-informed personal injury agent and railroad attorney would ordinarily prefer to defend a case of an injury resulting in death rather than one resulting in permanent disability. The reason is not very obvious, though it is sometimes accounted for by the fact that a jury has more sympathy for a permanent cripple than for the heirs or representatives of a dead man, whose injuries are covered by the grave. Like all other rules, this one has its exceptions, and a pretty widow and orphan children, as plaintiffs, have frequently caused verdicts to rise very high in the scale when compared with the earnings of the deceased.

It will be remembered that it is the province of the courts not only to set aside verdicts which are considered excessive and oppressive, but it is also their province to set aside such verdicts as, in their judgment, may be inadequate, and it will be of interest to the profession to know that, so far as my investigation has gone in the leading legal authorities on this subject the highest verdict which is reported to have been set aside was that in favor of a physician. I refer to the case of Phillips vs. London, etc., R. R. Company, reported in "29th Moak," on page 177, where a verdict of £7,000 for "injuries sustained by plaintiff through the negligence of the defendant," was set aside as inadequate on the ground that "the jury must have omitted to take into consideration some of the elements of damage." "The plaintiff, who was a physician in the prime of life, having a practice worth, perhaps, £7,000 per annum, was reduced by the injury to a condition of helplessness, with every enjoyment of life destroyed, and with the prospect of a speedy death."

While at first thought, it would seem that a verdict of $35,000 appears pretty large, and while any railroad company which was called on to pay that much for any of us would consider itself pretty unfortunate, still, when it is remembered that this amount only represented about one year's earnings of the plaintiff in the case, that his life was rendered a burden and greatly shortened by the accident, it is manifest that the verdict should have been set aside as utterly inadequate.

While some of our clients may not be able to appreciate the justice of some of the verdicts hereinbefore mentioned, and while some were doubtless influenced, to some extent at least by passion and prejudice, yet, after all, it is the duty of every good citizen to bow to the majesty of the law, ever remembering as has been said:

> Of the law there can be no less acknowledged than that her seat is in the bosom of God; her voice in the harmony of the world. All things in heaven and earth do her homage, the very least as feeling her care, the greatest as not exempted from her power, both angels and men and the creatures of what condition soever, though each a different sort and manner, yet all are with uniform concert, admiring her as the mother of their peace and joy.

The railroad surgeon can not prevent injuries, but he can very materially lessen the loss or damage thereto by careful and skillful attention to each case submitted to his individual care. In proportion as he lessens the cost of such injuries, will his services be valuable to the companies whose interests are committed to his care.

Clinical Reports.

MYCOSIS FUNGOIDES.

CASE REPORT WITH AUTOPSY AND HISTOLOGIC REPORT.

JOHN C. HANCOCK, M.D.
DUBUQUE, IOWA.*

The report of this case is offered in view of the comparatively rare occurrence of the disease, and the question as to whether the process is that of infection or neoplasm, the unfavorableness of the prognosis, and the futility of treatment.

History.—B. D. S., 39 years old, male, married, clergyman, was born in Missouri, but now resides in Iowa. He denies alcohol, tobacco and venereal history. I saw him June 29, 1899.

Family History.—Father died at 71 years and had "gravel"; mother living at 73 years and well; five brothers living and well, one brother died of typhoid; two sisters living; one sister died of "croup"; otherwise negative. Wife and five children are living and well.

Previous History.—Whooping cough at 4, chicken-pox at 5, scarlet fever at 6, measles at 10, pneumonia at 14, mumps and influenza at 30. During the 17 years preceding the present illness, patient had several varieties of skin lesions more or less obscure as to character. At 22 years he had an eruption on right side of trunk, left shoulder, thigh and groin. The spots were yellow to red, not elevated, irregular in shape and confluent, accompanied by burning and itching but without scaling. Arsenic internally and iodin locally caused this eruption to disappear. At the same time, and at intervals for thirteen years after, had cankers in mouth.

Present Illness.—This began six years ago with itching and burning on soles, palms, backs of knees and other joints, and was not accompanied by any visible eruption. The itching gradually increased, and the palms and backs of hands began to crack without any other signs of disturbance. About three years ago, with further increase of itching, flat areas bluish-pink or light purple, the size of finger nails, appeared. These areas were the seat of burning and itching, especially in presence of moisture. Slight thickening and fissuring of the discolored areas began, and line of demarcation from normal skin became distinct. The lesions on exposed parts were the most marked, and desquamation occurred. Nine to ten months ago in the center of these areas, pea-sized, round discrete elevated nodules appeared. These gradually increased in size, uniformly in most instances, but also irregularly, and became the centers of the most intense itching and burning. Some, after increasing in size, broke down, forming ulcers, while others, regardless of size or shape, became absorbed without breaking down. Still others showed absorption in segments of any shape or size, often leaving a furrow between the original segments. Sometimes one-half of a tumor absorbed while the other broke down or became absorbed later on. Absorption also started in the center and proceeded concentrically in some cases. Ulceration took place in the same irregular ways. After ulceration and healing the area became covered with skin, which, however, remained discolored. With the advent of the tumor masses and ulcers nine months ago patient began to have fever. The ulcers gave off a foul pus. Feb. 9, 1899, the patient consulted Dr. J. Nevins Hyde of Chicago, who made the diagnosis of mycosis fungoides.

Examination.—June 29, 1899, patient presented himself with the diagnosis of mycosis fungoides to Dr. G. A. Staples, who referred him to me for treatment. He was a man over six feet high, weighing 165 pounds, well built and still fairly well nourished. Examination showed extensive and marked skin lesions. These, as partially indicated by photographs, were at the outer canthus of the right eye, right angle of the mouth, both sides of neck beneath the lower jaw, back of neck, both shoulders and axillæ, extending from the left downward and inward over pectoral region toward nipple, both elbows, wrists and hands, palms and dorsum, both hips, external genitals, both thighs, but more particularly the left, both knees, and the left calf. The feet at this time were only slightly involved. These areas consisted of a plateau of indurated purplish-pink slightly scaling skin, sharply defined with reference to normal skin having without any system or regularity, either as to distribution or size, nodules varying in size from that of a large shot to that of half a pear. The elevated areas were not tender, but itched and burned. Fissures, especially on the exposed parts, were conspicuous and in the natural folds the skin was noticeably tough and thick. These areas changed slowly and seemed on the whole to advance. The tumors seemed to take origin in the skin, and were freely movable with it. For the most part, the base was broad, but in some cases the tumors were attached by pedicles. The tumors were solid, hard masses without fluctuation. In the course of their careers they grew slowly to the size of a hazel nut or larger, remained indefinitely, broke down in ulcers, or became absorbed. There seemed to be no rule or system governing their course. In breaking down to form ulcers or in absorbing, there was no uniformity in the same or adjacent tumors. Some absorbed across the center, leaving irregular masses to remain or be absorbed later or to ulcerate. The largest tumor to the right of and posterior to the scrotum was the size of a split pear. Ulcers formed in the same irregular way. On the outer and anterior aspect of the left thigh will be seen in the photos the largest ulcer. This measured 1½ by 2 inches. The ulcers presented elevated irregular thickened margins with uneven indurated centers covered for the most part with tough sloughs and pus. The ulcers were not tender to the touch. The pus was foul smelling and resembled ordinary pus in appearance. Beside this eruption there appeared from time to time, chiefly on the abdomen, the chest and the back, parts not much involved by the eruption described above, flat, discrete and confluent pink to purple lesions. These caused increased suffering from itching and burning. This eruption disappeared and recurred, but was present more than half of the time the patient was under observation. The superficial lymph glands were uniformly and slightly enlarged and not tender. Slight edema of the feet and ankles was present. Reflexes were normal. Heart and lungs and abdominal organs were negative. The urine in August, 1899, was 64 ounces in 24 hours, slightly acid; sp. gr. 1.012; slight possible trace of albumin; no bile or sugar; urea, 20.544 grams in 24 hours. In September, amount 31 ounces, pale, slightly acid; sp. gr. 1,011; one-eighth per cent. albumin, and urea 11.9 grams in 24 hours: sugar and bile absent.

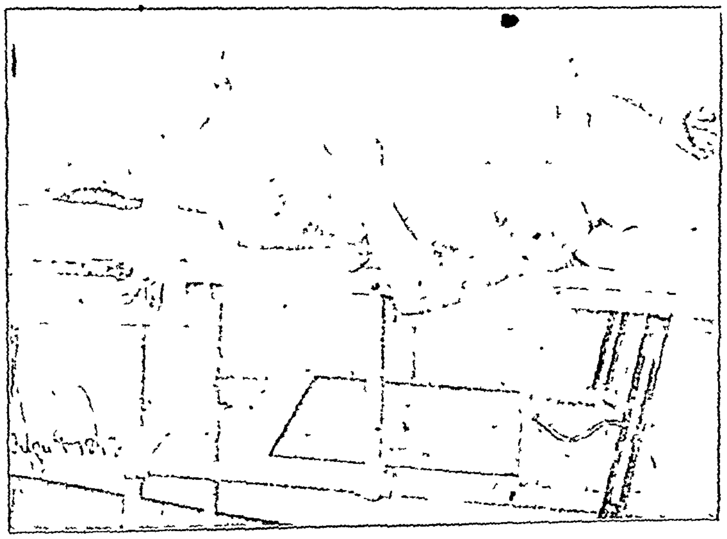


Fig. 1.- Case of mycosis fungoides, August, 1899

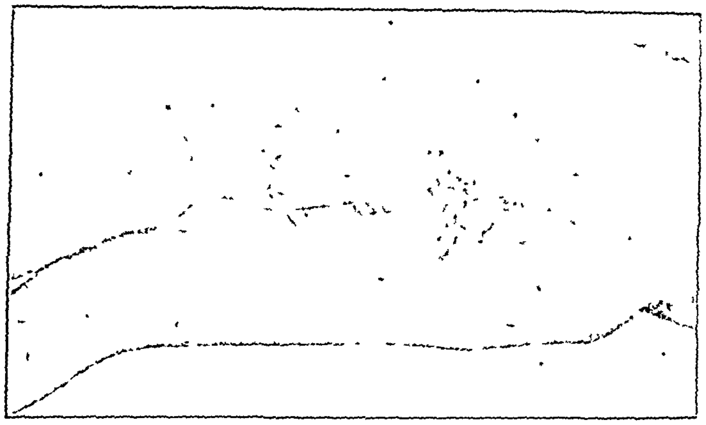


Fig 2 —Mycosis fungoides, August, 1899.

When the patient left for home, his weight had dropped to 152½ pounds. His subsequent history and the pictures were furnished by Dr. J. W. Kirkpatrick, Wyoming, Iowa, under whose care he remained until his death, in August, 1900. Dr. Kirkpatrick's report is as follows:

Course.—"Rev. B. D. S. came under my care in October, 1899. At that time he was able to be up and around the house all day, and did not suffer much pain aside from the itching and burning. The disease was present on the feet, legs, buttocks, hands, arms and one shoulder. The face and scalp did not become involved, excepting one ulcer at the corner of the mouth. The abdomen and chest were quite free from the disease. During the winter he began to have attacks of fever, which I believed to be septic, although every effort was made to keep the diseased parts scrupulously clean. At these times the temperature frequently went to 104 or 105 degrees, persisted three or four days, and then gradually subsided.

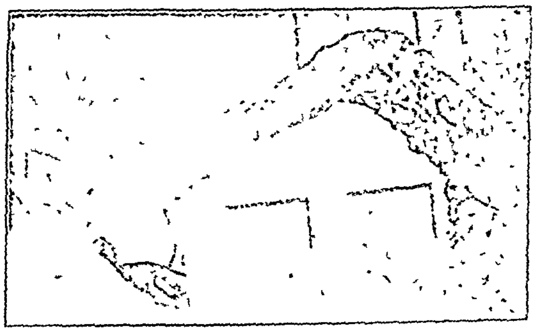


Fig 3 —View of leg later Figures 3, 4 and 5 are from photographs taken by Dr J. W Kirkpatrick, Wyoming, Iowa, some months later than Figures 1 and 2

Treatment.—"I used the Finsen light treatment on him for about six weeks, beginning in June. On the parts where the ulceration was not so deep, there was a very perceptible improvement. Many of the smaller ulcers on the feet healed entirely, but on the larger places it did not have the same effect, but rather made the parts more tender. I discontinued the treatment because it was evident that at best it could not have more than a palliative effect and the disease had already invaded the vital organs, and had sapped his vitality till it was very evident that the final issue could not be long delayed. I believe that this treatment in the earlier stages of this disease might be of utility."

The treatment of this disease as recommended by the authorities is both general and local, and from its variety seems to rest on no rational basis, and this goes to show that the relation of etiology, pathology and treatment leaves much to be determined. Practically all the remedies mentioned in works on diseases of the skin were tried at various times without any real or lasting effect being produced. The routine measures used to relieve the itching and burning and to secure cleanliness were warm baths of various kinds followed by the application of various ointments, powders and lotions, and the parts bandaged and dressed. These measures were but indifferently successful and sedatives were frequently necessary to secure rest and sleep. Arsenic internally was pushed to the limit of tolerance, with but slight and transitory effect. Subcutaneous injections of arsenic into the tumors caused sloughing of same, but other tumors appeared faster than those treated disappeared. Liq. iodi comp, as an injection was also tried Beta-naphthol and camphor combined were used internally and externally without effect. Thyroid extract internally produced no effect. Radiotherapy, as recommended by Hyde, was not tried, unfortunately, the patient having gone home. Finsen light, as mentioned by Dr. Kirkpatrick, produced no appreciable benefit.

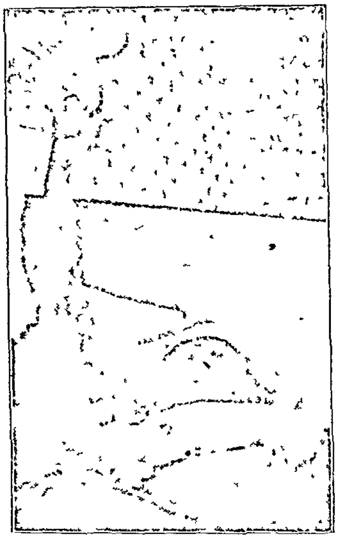


Fig. 4.—View of arm

Autopsy.—In August, 1900, the patient died, and by previous arrangement I was notified, and 18 hours after death performed the autopsy. The body had already been injected with formaldehyd. The conspicuous features were: (1) extreme emaciation, (2) skin eruption, (3) negative findings of the viscera. Emaciation had progressed to such an extent that no fat was to be made out macroscopically under the skin, in the mesentery, omentum, retroperitoneal or perirenal regions, or about the heart or other organs. On the surface of the body, more particularly on the buttocks, perineum, thighs, knees, ankles, feet, arms, hands, face, and back of neck were tumors varying in size from that of a pea to that of a small orange. Some, having broken down, had become large ulcers, presenting elevated, irregular, firm margins with uneven pitted centers, covered with sloughs and pus. Postmortem changes had reduced the tumors in size and consistency. The bases and the pedicles had their attachment in the skin entirely. Some tumors were easily detached, while others were firmly bound down to surrounding skin. About the tumors were areas of infiltration, brown in color, with free desquamation. On opening the abdominal cavity the viscera, except for absence of all fat, were normal. In the right pleural cavity the lung was extensively adherent to its parietes. Both lungs showed some hypostatic congestion posteriorly, otherwise the heart and the lungs were normal. The superficial lymph glands were enlarged, but the deep ones were not enlarged.

Histology.—The histologic report of the specimens is kindly furnished by Dr. J. H. Wright, director of the Clinico-Pathological Laboratory of the Massachusetts General Hospital, Boston. Since the case reported, Wright has examined two others and has found essentially the same pathologic conditions present.

"The material had been preserved in Zenker's fluid and in alcohol. It consisted of portions of skin, some of which presented tumor formations, and portions of lung, liver and spleen.

"Microscopic examination of sections of the material from the skin shows that the tumor formations are composed essentially of a very cellular tissue. In the sections the tissue has the appearance of being made up essentially of closely packed small cells among which a relatively small amount of connective tissue stroma as well as a fair number of capillary blood vessels are distributed. Over wide areas the stroma was only made easily visible in the form of a reticulum of fibrils by the use of Mallory's connective-tissue stain.

"The cells which make up the greater part of the tumors vary greatly in size and appearance. The prevailing cell has little or no cytoplasm, and usually has a very irregularly shaped, shrunken or wrinkled-appearing nucleus in which there are few or no nuclear granules. The size of these cells varies, some of them being smaller than lymphoid cells, but probably most of them slightly larger than lymphoid cells. Their nuclei are very different in appearance from the deeply staining, round or oval, granular nuclei of lymphoid cells. Another kind of cell has a large, pale-staining irregular nucleus and an indefinite amount of cytoplasm. Besides these cells there are other structures staining more or less deeply with nuclear stains and apparently representing degenerated nuclei. In places polynuclear eosinophilic leucocytes are scattered among the cells of the tumor. The epidermis over the tumors is more or less atrophic and distorted.

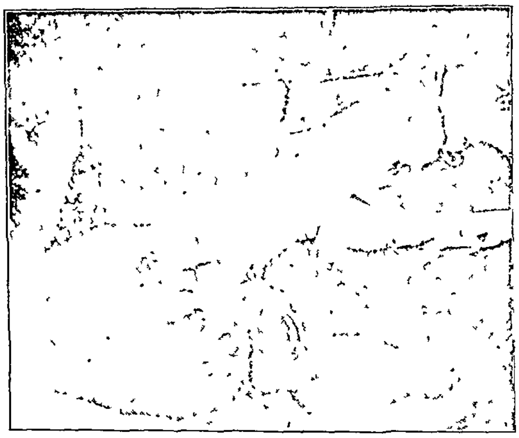


Fig. 5.—View of nates.

"In sections of the skin, in which no gross tumor formation was apparent, infiltrations and aggregations of the same cells as those described above in the tumors are present in the corium and around sweat glands.

"The study of the sections from the skin and from the tumors strongly suggests that the tumors have arisen as infiltrations in these situations.

"No bacteria or other parasites were observed in the sections.

"In general the histologic structure of the tumor tissue is very similar to that of the sarcoma originating in lymphadenoid tissue, that is lymphosarcoma. It also has some similarity to that of syphilitic lesions.

"In my opinion the neoplasm in this case should be classed as a sarcoma. If one accepts the widely spread belief that lymphosarcoma and similar neoplasms are caused by parasites, he will regard the new growth in the present case as also caused by a parasite. I do not hold this view, however.

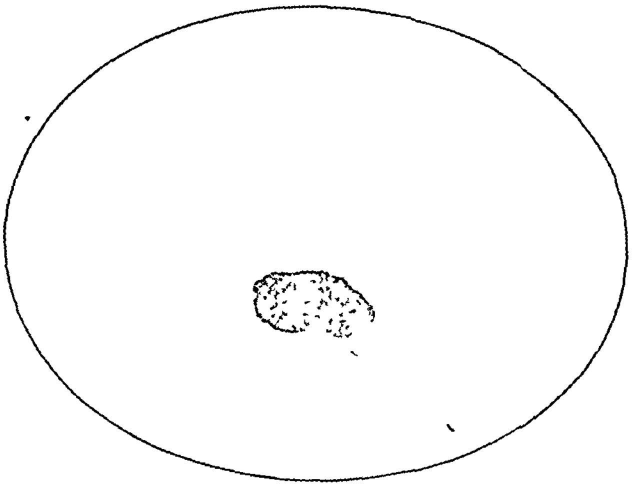
"Microscopic examination of sections of the liver, lung, spleen and kidney shows nothing worthy of mention."

URETERAL INJECTION OF OIL FOLLOWED BY THE SPONTANEOUS PASSING OF A URETERAL STONE.

LOUIS E. SCHMIDT, M.D.
CHICAGO.

Mrs. P., age 35 years, married 10 years. Family and previout history gives no information. Present sickness commenced in June, 1897, with a sudden colicky pain in the right iliac region and lancinating pains down the inner surface of the right thigh. This attack lasted 20 hours, and during this period Dr. Etheridge found a copious quantity of blood in the urine, and was obliged to give morphin hypodermatically to alleviate the pain. Since then the patient has had repeated typical attacks of renal colic; however, the pain was more or less localized in the right iliac region, and the attacks were never as severe as the first. A skiagraph taken in December, 1902, showed the outlines of a ureteral stone. The dull ache and tenderness always corresponded to this point.

Drs. Harvey and Paddock referred the case to me Jan. 5, 1904. I catheterized the right ureter and several centimeters from the ureteral orifice a slight obstruction was felt, but the catheter glided over it readily. To collect a sufficient quantity of urine to establish the sufficiency of the kidney in case of needed surgical interference, the catheter was left in place for two hours. At the end of this time 12 c.c. of sterilized albolene were injected into the pelvis of the right kidney, 8 c.c. were injected along the ureter as the ureteral catheter was gradually withdrawn. There immediately followed a dull ache in the right lumbar region and down the right iliac region. Although this was not as severe as any of her attacks, yet it was of such character as to necessitate her resting for some minutes before leaving the office.



The pains and the dull ache of which she had complained since the beginning of her present sickness became more severe than they had been for the past years. Finally, during the morning of January 12, the pains in the right iliac region became very severe. She became uneasy, and in order to distract her attention she sat down to the sewing machine. In a few minutes the patient, as she described it, "felt something give way." She was then obliged to urinate, and passed the stone which is here shown. Since then a skiagraph has been taken and the plate shows the absence of the stone, in contradistinction to the skiagraph taken in December, 1902. Since the passing of the stone the patient feels considerably better, especially mentally, as she knows the stone no longer exists in her ureter.

1003 Schiller Building.

A CASE OF EXFOLIATION OF THE ANTERIOR ARCH OF THE ATLAS.

RICHARD H. BROWN, M.D.
Associate Clinical Professor of Diseases of the Ear, Nose and Throat, Medical Department University of Illinois.
CHICAGO.

J. P., aged 30, a Bohemian, was employed in a carriage factory. He was extremely pale and emaciated, and the principal symptom that at once attracted attention was the fact that he carried his head and shoulders as rigidly immovable as though clamped in a vise. In expectorating, he would bend from the waist, shielding his neck in every movement. He complained of very severe pain in his throat and in the muscles of his neck.

Examination.—An angry ulcer was found, oval in outline, and about a centimeter in its longest diameter, on the posterior wall of the pharynx, a little above the level of the soft palate. There was a profuse purulent discharge and great inflammation of the parts around. Further examination showed marked enlargement of the glands over the entire body, with a mottled eruption, mucous patches in the mouth, and a low-grade fever. There was no difficulty in diagnosing the case as syphilitic.

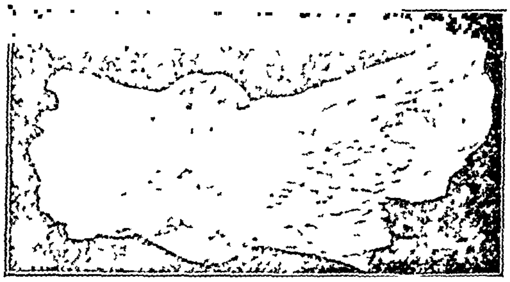


Fig. 1.—The exfoliated portion of the atlas, anterior view.

History.—The history in brief was as follows: The first sore came in October, 1896. The sore throat showed in December, and the eruption on the body and the ulcer in the pharynx came the next month. Some time during February, or only four months after the initial lesion, he began to have pain in the muscles of the neck and increasing stiffness. Immediately on the appearance of the chancre he began treatment, but it had little or no effect. He was in a pitiable condition when I first saw him, July 17, 1897. For six weeks he slept in a chair, as the pain on turning, or rising to expectorate, was intense. It was necessary to give him morphin frequently to ease his suffering. He came to the office daily for treatment of the ulcer. Improvement began to be noticeable in about ten days, and continued, gradually but slowly, until full recovery.

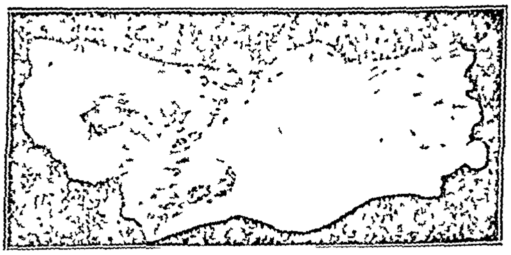


Fig 2.—Same, posterior view.

Treatment.—He was put on daily inunctions of mercurial ointment and increasing doses of protoiodid, beginning with ¼ grain, after each meal, and reaching finally as high as 2½ grains at a dose. With this was given a bitter tonic, with essence of pepsin. The food consisted principally of milk, egg-nog and soft-boiled eggs. Locally, the ulcer was washed out daily with an alkaline spray and peroxid, and filled with a mixture of papain and iodoform.

The extreme pain lessened and then disappeared, but the limitation of motion continued. Except for a rocking motion of the head on the condyles, all turning seemed to be from the waist. The ulcer did not entirely heal, and it was apparent that there was dead bone at the bottom. This was allowed to separate of itself, which it did early in October, and very much to my surprise, I found that nearly the entire anterior arch of the atlas had come away.

A few days later the patient told me that he hawked up a small piece of bone, shaped like a finger nail, smooth on the one side and rough on the other. This was doubtless the articular facet from the anterior face of the pin of the axis. This scale of bone was, unfortunately, not preserved.

The illustrations show the front and back views of the piece of the atlas exfoliated and are about one-half larger than the original.

Course.—After the sloughing off of the piece of bone, the ulcer quickly healed, and the patient, in a few weeks, was able to do light work. For some months afterward, a sharp pain warned him not to move the head too far backward, and the motion of rotation was limited about one-half.

A marked depression existed in the throat at the site of the injury, and the finger there could not detect any motion whatever between the atlas and axis.

The extent of rotation has increased somewhat during the past years, probably from increased mobility of the cervical spine, and, except for the slight stiffness of the neck, the patient shows no symptoms of his former trouble.

Other Cases.—I find recorded in the literature some eighty cases of caries and necrosis of the atlas or axis, the vast proportion being evidently tubercular. With but few exceptions, they ended fatally, and nearly all of those who survived were paralyzed in greater or less degree. I was able to find only five cases[1] of syphilitic exfoliation of parts of these bones, one reported from Germany, three from Great Britain, and one from this country. All recovered. Doubtless a good many other cases of this kind have occurred, which have not been reported, for this is a common place for a pharyngeal ulcer, and deep ulcers from syphilis are extremely frequent.

In the other five cases found, as well as in my own, there were no signs of inflammatory trouble of the medulla, despite the nearness of the disease to this vital point.

70 State Street.

ABDOMINAL PAIN AND PNEUMONIA.

G. H. SCOTT, M.D.
Assistant Surgeon, U. S. A.
BULAN, SORSOGON PROVINCE, P. I.

In connection with the instructive paper by Dr. Herrick in The Journal of the American Medical Association on "Abdominal Pain in Pleurisy and Pneumonia," I report the following case:

The patient, a native female, single, aged 20, of previous good health, suddenly was seized about 10 a. m. with a violent chill, followed by very severe pain in the umbilical region. This lasted for about an hour. About 5 p. m. the pain returned, and she had a sensation of "burning up," as she expressed it. I saw the patient for the first time about 9 p. m. The abdominal pain seemed to radiate downward and laterally from the umbilicus, but did not extend above that point. It was of a dull, aching character, although the first paroxysm had been of a sharp, stabbing nature. No evidence of tenderness was found, and there was no rigidity or tympany. Bowel movements had been natural. The temperature was 100, pulse 80, full and strong. Examination of the chest was negative, except that there was hurried breathing and a few coarse râles. Heart was normal.

The next morning, after a sleepless night due to the abdominal pain, which was but partially relieved by morphin, gr. ¼, the patient had a violent paroxysm of coughing without expectoration, which lasted about half an hour. When I saw her a little later, there was some cessation of pain, the temperature was 100, pulse 92, with no more physical signs of chest disease than on the previous evening. I decided the condition was one of acute bronchitis, but could not account for the abdominal pain. That evening the condition was precisely as in the morning, except that pain was less (no more morphin given) and a slight, dry cough had developed. Patient slept well that night. On the morning of the third day the pain had ceased entirely, the cough was slight, but now was accompanied with mucopurulent expectoration. On auscultation, numerous fine crepitant râles were heard, but the breath sounds, while increased in number, were otherwise normal. Temperature 100, pulse 90, respiration 22. Patient felt much better, but toward evening the abdominal pain returned in greater intensity after a slight but natural movement of the bowels, and vomiting set in, again directing my attention to the abdomen. There was, however, no evidence of abdominal disease. There were no additional signs in the chest, although the cough and mucopurulent expectoration had greatly increased. Patient passed a good night, due probably to a ¼ gr. of morphin, necessitated by the severity of pain.

The next morning (fourth day of illness) pain and vomiting had ceased, and physical examination gave all the signs of an acute lobar pneumonia, involving the upper lobe of the right lung, and for the first time the patient complained of pain and constriction in the chest and dyspnea, and curiously enough the pain was wholly on the left side, which remained normal. Temperature was now 102, pulse 90, full and strong, respiration 28.

The patient then ran a typical course of pneumonia, the temperature falling by crisis on the twelfth day after the original onset of illness. On the second day of the pneumonic process, the abdominal pain returned, and continued in a slight degree during the entire course of the disease, subsiding entirely at the crisis, never to recur. There were no other abdominal symptoms nor any abdominal signs.

Convalescence was rapid and perfect. However, four weeks after I had discharged the patient as cured, edema and pain of the extremities suddenly developed, and death resulted in eighteen days from acute beri beri, which is so common among the native population. The attack of beri beri evidently bore no relation to the pneumonia for three weeks after discharge the patient was well and strong as ever and enjoying perfect health.

New Instrument.

A NEEDLE TO CARRY THE McGRAW ELASTIC LIGATURE.

JOHN M. BELL, M.D.
DETROIT.

The accompanying illustrations show a needle which I have devised to carry the McGraw elastic ligature. The needle is one solid piece of steel, with a slot in the end, into which the ligature is placed after being put on the stretch.

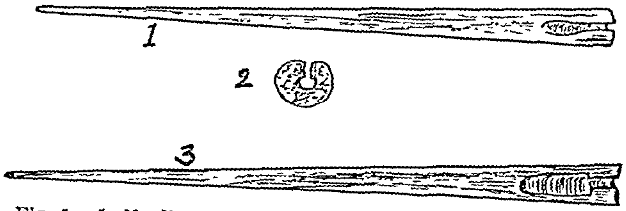


Fig. 1.—1, Needle to carry elastic ligature; 2, end view; 3, sectional view.

When relaxed the end of the ligature which lies in the groove expands sufficiently to hold it in place when being drawn into the stomach or intestinal wall. A large ligature can be used with a small needle by clipping a small piece from the side of the ligature near the end.

Alcohol.—Valentino has shown in the *Revue de Méd.* that the toxic effects of alcohol are due in part to its dehydrating power, as previously asserted by Dubois; the staggering gait to the toxic power of alcohol proper and the coma to the absorption of water from the nerve tissues.

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[1] Deutsche Zeitschrift für Chir., July, 1885; Lond. Med. Gazette, April 4, 1835; Philadelphia Med. Times, Oct. 19, 1872; Dublin Jour. Med. Sci., February, 1877; Medico-Chir. Trans., London, Feb. 13, 1849.

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SATURDAY, MARCH 12, 1904.

THE BODY-WEIGHT CURVE IN CHRONIC DISEASES.

The significance of the temperature curve for diagnostic, prognostic and therapeutic purposes in the acute and subacute diseases, is generally recognized. The clinical thermometer is diligently used by every practicing physician, by the trained nurse, and often by the laity independently of physician or nurse.

It was Gerhardt who first emphasized the fact that the body-weight curve is as important for the study of the nature, progress and treatment of the chronic diseases as the temperature curve is for the study of the more acute maladies. Nothing is more true than Gerhardt's statement, and yet it is but rarely in hospital or private practice that the advantages of keeping accurately a body-weight record over a longer period are fully appreciated. Many elaborate methods have been devised for studying the "total metabolism" in health and in disease. The methods are extremely difficult in application; the composition of the food and its energy-value in calories has to be determined; the relation of the incoming to the outgoing nitrogen has to be studied; the amount of carbon burned and of oxygen absorbed must be ascertained. As a substitute for these metabolic analyses, the procedure of direct calorimetry may be resorted to in the manner so well carried out by Atwater in this country. The more rapid and less circumstantial method of studying oxidation processes introduced by Zuntz and Geppert, in which the so-called "respiratory-quotient" is determined while the patient is fasting and at rest, while it has yielded results of scientific value concerning the temporary effects of work, food and drugs on metabolism. can yield us no reliable information regarding the total metabolism over a longer period than a few hours, or, if any, only clues as to the coarsest kind of deviation from the metabolic normal.

For a complete judgment regarding the measure of the oxidation processes in the body and the questions as to whether the total metabolism is pathologically high or low, and as to whether a given regimen is sufficient, is overabundant or is deficient, it is necessary to keep the patient for at least twenty-four hours at a time in a respiratory apparatus or a calorimeter, and, beside carefully analyzing the food, to make quantitative estimations of the nitrogen and carbon given off in the urine and feces. It is obvious that the necessary data for such a judgment could be obtained only in hospitals with outfits especially adapted for the purpose (like that of Professor Jaquet's in Basel), and that in ordinary hospital and private practice such things can not be thought of.

These complete experiments, desirable as they are for rigid scientific investigations, are totally impracticable, and, beside, wholly unnecessary in general practice, where, as a matter of fact, an approximate estimation of the metabolic relations is all, in the present state of our knowledge, that the physician needs in this connection to guide him in advising his patient; and such an approximate estimation, provided the kind and amount of food be known, is afforded by the simple observation of the body weight over a certain period.

In studying the body-weight curve, as Fr. Müller[1] has emphasized, certain details must be considered, such as the temporary changes in the content of the bladder and intestine, and, especially, the variations in the amount of water in the body which take place when a patient changes from one kind of diet to another, or in fever, in profuse sweating, in diminished water-absorption (as in stenosis of the esophagus or pylorus) and in the accumulation or absorption of exudates and edemas. Taking these things into account, the observation for a considerable length of time of the body-weight curve is one of the best means we have of judging the metabolic activities of the body. When the patient takes an ordinary diet, it is easy to estimate the nutritional value (i. e., to determine the energy-value in calories) of the food eaten, with sufficient accuracy for clinical purposes, by referring to Schwenkenbecher's tables.[2] A healthy resting man needs daily 33 calories per kilo of body weight; if his occupation is sedentary, 35 calories; if moderately active, 41, and if involving hard labor, about 48.

Not infrequently in people who are losing flesh without apparent cause, an estimation of the energy-value of the food taken in reveals the fact that, though the patients believe they are taking enough food and of the right kind, they are really not doing so; in such cases a readjustment of the diet usually brings the body-weight curve back to normal. Or, again, when on a well-arranged diet, fully sufficient in energy-value for the maintenance of the body weight of a healthy individual, a patient continues to lose flesh, a consuming disease of some kind, even when no other symptoms are obvious, may be safely predicated. A man with latent tuberculosis, even in the afebrile stage, may lose weight on a diet, the energy-value of which exceeds 50 calories per kilo. In locomotor ataxia and certain other chronic affections, the patients usually remain thin and pale, in spite of an abundant food supply, while in Basedow's disease, a patient with ravenous appetite, consuming food with an energy-value of from 60 to 70 calories per kilo of body weight, may progressively emaciate.

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[1] Müller, Fr.: Allgemeine Pathologie der Ernährung. v. Leyden's Handbuch der Ernährungtherapie und Diatetik, second ed., p. 189.

[2] Schwenkenbecher, A.: Ueber die Nährwerthberechnung tischfertiger Speisen. Zeitschr. f. diatet. u. physikal. Therap., vol. iv, p. 380.

DEMONSTRATION OF TUBERCLE BACILLI IN FLUIDS.

Inoculation experiments to prove the tuberculous or non-tuberculous character of fluids which contain bacilli in too small numbers to be detected by the microscope, have always been only partially satisfactory, because of the length of time needed before a result can be obtained. Several weeks must elapse before the development or non-development of tuberculosis in the inoculated animal decides the question. Now Marmorek[1] announces the discovery of a new method which he asserts will give prompt results and enable one to prove the tuberculous character of a fluid within a few hours' time. The value of such a method to clinicians is obvious, and great interest attaches to this statement. Marmorek's explanation of the tuberculin reaction differs from that usually accepted. It is generally held that this reaction will take place only in an organism in which the histologic lesions of tuberculosis are present, and, therefore, not until some time has elapsed since the infection has occurred. Marmorek, however, holds that the tuberculin reaction takes place between the tubercle bacilli and the tuberculin; the latter as it comes in contact with the bacilli causes them to secrete a toxin which gives rise to the fever and other symptoms which make up the tuberculin reaction. The presence of tubercles is not necessary for this reaction, and, therefore, it should be possible to bring it about immediately after an injection of bacilli without waiting until they have set up structural changes in the organism. Accordingly, Marmorek has found that the characteristic febrile reaction can be obtained by the injection of tuberculin a few minutes after the injection of a small dose of tubercle bacilli. One cubic centimeter of a slightly opalescent suspension of tubercle bacilli is injected under the skin of a guinea-pig, and then after the lapse of from fifteen to twenty minutes it is followed by the injection of 0.3 c.c. of tuberculin—a dose too small to have any effect on a control animal. The temperature of the animal begins to rise almost immediately, and by five hours it has reached 40 C., or even higher. If a stronger suspension of bacilli is used, the animal may die of intoxication in a few days; the same result may be obtained if a larger dose of tuberculin is used. The interval between the administration of the bacilli and the tuberculin should be not less than fifteen minutes nor more than an hour and a half. After this time the reaction grows more and more feeble, and by twenty hours it fails altogether, owing, as Marmorek thinks, to the fact that the leucocytes have by this time incorporated the bacilli, and act as a barrier between them and the tuberculin. The appearance of the tuberculin reaction at a much later period, as in the usual procedure, Marmorek explains by supposing that the bacilli have become free again as a result of the disintegration of the leucocytes.

In his most recent publication[2] he states that it is necessary to modify slightly the above method when the number of bacilli in the fluid injected is extremely small, as may often be the case in pleuritic or peritoneal effusion, cerebrospinal fluid, sputum, urine, milk, etc. In such cases it is necessary to inject the tuberculin directly into the substance of the cerebrum. Half an hour after the subcutaneous injection of the suspected fluid the skull of the guinea-pig is trephined and one-eightieth of a drop of tuberculin is injected into the brain. The temperature then rises two or more degrees centigrade, while that of a control animal—which has received the intracerebral dose only—rises not more than one and four-tenths degrees, usually much less. Marmorek considers this method simple, positive in its results, and of great value in demonstrating the tuberculous character of fluids, which, by the older method, could not be demonstrated until after the lapse of several weeks.

A much more cautious and less optimistic statement is made by Nattan-Larrier,[3] who has been working in the same field in Dieulafoy's laboratory since 1900. He also finds that it is unnecessary to wait for the development of the anatomic lesions of tuberculosis before obtaining the tuberculin reaction, but his method is not as rapid as that of Marmorek. He has obtained his best results by allowing four to six days to elapse between the injection of the suspected fluid and the injection of tuberculin. Nattan-Larrier uses pregnant guinea-pigs, and makes the injection into the fibrous tissue around the mammary gland. His results were all carefully controlled by inoculation experiments, and his statements are cautious and carry conviction to the reader. While believing that this method may be used to demonstrate the presence of tubercle bacilli in a fluid long before the usual inoculation experiments could do so, Nattan-Larrier utters a warning as to its employment. The fact that the diagnosis must depend entirely on the rise of temperature in the animal makes it a delicate and doubtful experiment unless every possible precaution is used. The temperature of the guinea-pig is naturally variable, and it is, therefore, necessary to ascertain the normal variations of each animal before use, to employ a very sensitive thermometer, and to insert it into the anus at the same depth each time, otherwise errors may easily arise. As we have already seen, there is a difference of only six-tenths of a degree between the maximum temperature given by Marmorek for a non-tuberculous reaction—one and four-tenths degrees centigrade—and the minimum temperature for a tuberculous one—two degrees centigrade.

We shall await with great interest the further publications on this subject promised by these experimenters. A sure and rapid method for the demonstration of tubercle bacilli, which are too few to be detected by the microscope, will be an immense aid to the diagnostician.

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[1] Semaine Méd., Dec. 23, 1903, p. 419; Société de Biologie, Dec. 25, 1903, p. 1650.

[2] Société de Biologie, Jan. 22, 1904, p. 60.

[3] Ibid., Feb. 5, 1904, p. 135.

SUGAR METABOLISM THEORIES.

The number of theories advanced to explain a phenomenon or process in nature is often inversely proportioned to our understanding of that phenomenon. This is especially true in regard to the mechanism of sugar metabolism in the body, for we find here a long list of theories to explain it, while none of them is entirely satisfactory, and new ones are still being added. As early as 1886 it was observed that there are changes in the pancreas of patients who succumb to diabetes; and these observations led investigators to believe that the pancreas in some way regulates the consumption of sugar in the body. This view received a strong support in 1890 by the classical experiments of v. Mering and Minkowski. They removed the pancreas from dogs, and found that this operation is followed by marked glycosuria and other symptoms of diabetes mellitus. A partial extirpation of the gland was followed by a mild form of glycosuria, which, however, later passed into a severe form. On the other hand, de Renzi and Reale observed no symptoms of diabetes after extirpation of the pancreas; but their observations led them to believe that the sugar metabolism is controlled not only by the pancreas, but also by the salivary glands and the duodenum. This view they found substantiated by the fact that the removal of these organs was followed by glycosuria.

In view of the fact that a slight injury to the floor of the fourth ventricle of the brain, a brain tumor or concussion of the brain, often produce glycosuria, it has been held by some that the glycosuria following extirpation of the pancreas is not due to the loss of this gland, but to injury, during the operation. of the celiac plexus and other nerves of that region. The metabolism of sugar would, therefore, be under the direct control of the nervous system. A. and E. Cavazzani have demonstrated degenerative changes in the celiac plexus and in the nerves accompanying the hepatic artery, after removal of the pancreas, but it has been proven that these changes are not the cause of the glycosuria. If a portion of the pancreas of a dog is removed and transplanted under the skin, and the remaining portion of the gland then removed by a later operation, no glycosuria is produced by this operation, although the injury to the nerves is fully as great as when the pancreas is removed by one operation. The removal of the transplanted portion of the pancreas by a third operation is followed by glycosuria. These facts show that the pancreas in some way regulates the consumption of sugar, but how this is done is by no means clear.

Lepine then advanced the theory that the pancreas has an internal secretion of the nature of a glycolytic ferment, and that this secretion passes through the thoracic duct into the blood, where it is found in close relation to the white corpuscles. He asserted that he had found this ferment in diminished quantities in diabetic patients and in animals which had the pancreas removed by operation. This theory was vigorously attacked from all sides, and Arthus showed that the sugar in the blood, held in a vessel between two ligatures, does not disappear. If this observation is correct, there can be no glycolytic ferment in the blood. Many other objections to this theory have been brought forward, and Lepine himself has discarded it for a new one, according to which the pancreas (independent of an internal secretion) is supposed to destroy substances which prevent glycolysis in the tissues. It is still very widely held, however, that the pancreas has an internal secretion of the nature of a glycolytic ferment. Opie has shown that the islands of Langerhans are the chief structures concerned in human diabetes, and it may now be conjectured that they have an internal secretion which is necessary for the metabolism of sugar. Very recently Cohnheim[1] has shown that although extracts of either pancreas or muscle made by grinding up the frozen tissues and expressing the juices with a powerful press, are practically without glycolytic properties, yet a mixture of the two is capable of rapidly destroying relatively large quantities of sugar. He found also that blood serum, when mixed with the juices obtained from the pancreas and muscles, has an anti-glycolytic action, which would indicate that the oxidation of sugar does not take place in the blood but in the muscles, where it can furnish both heat and energy. It seems, then, that the islands of Langerhans of the pancreas have a secretion which, when mixed with a substance present in the muscles, forms a ferment that has the power of rapidly destroying sugar.

Cohnheim's views are, however, disputed by Blumenthal,[2] who claims to have made, from various organs, extracts which are capable of destroying large quantities of sugar. He states also that a dog can utilize sugar after total removal of the pancreas. Blumenthal favors the view that all tissues contain a glycolytic ferment, and that the liver may be of special importance in the oxidation of sugar. He admits, however, that a mixture of the extracts of pancreas and muscle destroys larger quantities of sugar than either extract alone, and it would seem, therefore, that Cohnheim's view is liable to be slightly modified as new facts are being discovered. In 1902, Croftan[3] published certain observations, from which it appeared that the destruction of sugar is promoted by the combined action of pancreas and albuminoid bodies, such as hemoglobin, which consequently would have to be wholly removed from the tissues employed in experiments like those mentioned in the foregoing to exclude definitely its action.

A TYPHOID FEVER CENTER.

Attention has been recently directed once more to the remarkable prevalence of typhoid fever in Pittsburg,

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[1] See The Journal A. M. A., Dec. 12, 1903, p. 1480.

[2] Deutsche med. Woch., Dec. 17, 1903.

[3] Phila. Med. Jour., 1902, p. 143; Am. Jour. Med. Sc., 1902, p. 669.

Pa., by the discussion in regard to filtration which has been carried on during several months by the public press of that city. When one of the leading newspapers of Pittsburg is moved to print an editorial under the caption "Our Typhoid Pre-eminence," it is evident that the situation must be recognized as one worthy of concern. Just how serious the conditions are may be gathered from the fact that the typhoid fever death-rate of Pittsburg has for some years outranked that of any other large American city. It is stated that in 1903 there were 473 deaths in Pittsburg from typhoid fever, a figure that would signify a death-rate more than four times as high as that in the city of Chicago during the same period. In the census year 1900 Pittsburg recorded 465 deaths from typhoid, or a death-rate of 14.49, as compared with a death-rate in the same year of 1.81 for New York, 1.98 for Chicago, 2.55 for Boston, and 3.47 for Philadelphia. The report of the Filtration Commission of Pittsburg, published in 1899, shows that this pre-eminence is not a new distinction, but that there has been for many years a marked and deplorable excess of typhoid fever in the city.

These facts are by no means unknown to the inhabitants of Pittsburg. A movement to purify the water supply was set on foot some years ago, but the plan has failed of full fruition. It is now hoped that the arrangements for a comprehensive filtration system, which have so long been allowed to hang fire, will soon be put into execution. Since it seems to be true that the cities of Chicago and Philadelphia, long signal offenders in the matter of a pure water supply, are about to lose their unfortunate pre-eminence, Chicago, through the completion of its system of intercepting sewers, and Philadelphia, through the construction of an admirable sand filter plant, it is hardly to be supposed that a city so wealthy and ambitious as Pittsburg will allow itself to assume a rôle of such unenviable notoriety.

There is one feature in this connection which we believe has not received sufficient attention, namely, the intimate sanitary interdependence of communities geographically and commercially related. The section of Western Pennsylvania around Pittsburg and Allegheny has long been known to be grievously infested with typhoid fever. The recent outbreaks at Butler and Kittaning are still fresh in the minds of our readers. It does not seem unfair to assume that the extended diffusion of typhoid fever throughout this region must be laid in large part at the door of the city of Pittsburg. It is clearly impossible to calculate exactly how many persons may have contracted typhoid fever during visits to the metropolis of Western Pennsylvania, and have returned to their homes to furnish the material for fresh outbreaks. It needs no argument to show that the infected water supply of a large city may diffuse its baneful influence far beyond the limits of the community immediately responsible for its existence, and may serve to light up new foci of infection in scores of innocent towns and hamlets. The exceedingly mischievous character of a highly infected water supply in any great center of population and commerce can hardly be overestimated. The whole country is directly concerned in having the situation at such infected centers corrected promptly and effectively. The ever-widening circle of infection that spreads out from such a focus of typhoid fever as that at Pittsburg menaces the health of even far distant communities. It is almost a matter of national importance.

CONCERNING MERCURIAL EXANTHEMATA AND IDIOSYNCRASY TO MERCURY.

Considering the fact that, if all forms of the drug are included, mercury is one of the most frequently used medicaments in the Pharmacopeia, it is of great importance to recognize the skin lesions produced by it. It is only recently that we have appreciated that not only the use of mercury by the skin, but also its internal and subcutaneous administration, may lead to cutaneous lesions which closely resemble certain of the exanthemata or specific skin diseases.

In a recent article, Tomasczewski[1] reviews the question of the mercurial exanthemata, illustrating his points by cases of his own, and by others cited from the literature. His views regarding the importance of certain conditions underlying mercurial skin lesions are somewhat at variance with general opinion. He points out that the method of application of the mercury is of minor importance, and that exanthemata may be produced by the oral, hypodermic or dermic administration of the drug. He qualifies this statement by admitting that in applying the drug externally more of it is necessarily brought into contact with the skin than is the case when the oral or subcutaneous methods are used. It has been generally held heretofore that the internal administration of mercury did not cause exanthemata. In considering individual idiosyncrasies he follows Jadassohn in holding that there are two classes of individuals subject to toxic eruptions—those who have a general hypersensitiveness of the skin, in whom any irritating substance will produce skin lesions, and those who have a special or specific hypersensitiveness to certain drugs which are not necessarily of an irritating nature.

In this paper Tomasczewski discusses only the true mercurial exanthemata, which are to be distinguished from the ordinary acne mercurialis of the hairy surfaces, and the fugitive mercurial dermatitis most common in the axillæ and groins, both of which are associated with the local application of the drug. The true mercurial exanthem may occur after the administration of the drug in any form. The eruption in these cases is varied, and no less than seven types may occur. Tomasczewski cites cases resembling measles, cases resembling scarlet fever, those resembling purpura hemorrhagica, those resembling erysipelas, erythematous and urticarial eruptions, and eruptions simulating pemphigus vulgaris. The urticarial eruptions and those resembling scarlet fever are fairly common, the other forms rather rare. In the form simulating measles, all of the symptoms and signs of the disease, including a diazo-reaction in the urine, may be present, and scarlet fever may be mimicked as closely. The pemphigoid form is most difficult of diagnosis, but is infrequent. In discussing the diagnosis of mercurial skin lesions in general, the author lays stress on the tendency to extensive desquamation, and the peculiar violet-red color of the lesions. Needless to say, the history of the use of mercury, and the fact that recovery follows the discontinuance of the drug, is of great importance, as is also a recurrence of the lesions on the resumption of the mercury.

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[1] Zeitschrift für klin. Med., vol. li, Nos. 5 and 6.

THE BUTLER EPIDEMIC.

With the closing of the emergency hospital February 25, the typhoid epidemic at Butler, Pa., may be fairly said to have come to an end. The total number of cases during the outbreak has been about 1,364, and the number of deaths 115. A noteworthy and deplorable feature of the epidemic has been the infection of some twenty of the nurses, amounting to nearly 10 per cent of the number employed.

THE ANTI-SPITTING CRUSADE.

At present there seems to be a revival of the anti-spitting crusade, and we hope it will be more effective and permanent in its results than have been previous endeavors along this line. In a number of cities active measures have been taken, and persons have been surprised at their arrest for what they considered the exercise of a natural right. The danger from sputa is a real one, though it may sometimes be exaggerated, but there is enough otherwise objectionable in the habit of itself to make it condemnable. As it has been permitted in the past, no one can question the fact of its having been a nuisance. There is, of course, a certain hardship to persons who have to expectorate, and the habit of carrying pocket cuspidors will be very slowly acquired, and perhaps never will become a general one. But the disgusting practice of spitting on sidewalks, in street cars and on floors generally, is not an excusable one under any circumstances, not even on the ground of necessity.

THE EXPLOSION OF CURRENT BELIEFS.

One of the results of the ceaseless investigation which characterizes the medical world of the present, is the retesting of many of the theories, which, on account of their age, or their apparent rationality, have almost assumed the finality of facts. Most of us can remember the time when the idea that appendicitis was generally caused by foreign bodies was current, an idea which still exists in the minds of most of the laity. And now comes an article by Prettin and Leibkind[1] which shatters our current belief regarding the prevalence of emphysema in glass blowers. If ever a theory seemed rational and well grounded, that which regarded wind-instrument players and glass blowers as particularly prone to emphysema would seem to have been one. The examination of two hundred and eighteen glass blowers by the authors mentioned showed only five cases of emphysema, a result which is decidedly destructive to the current belief on this point. Fischer's article[2] of two years ago showed almost identical results so far as wind-instrument players were concerned, as he found that in five hundred military musicians there was no case of emphysema, even in individuals over fifty. Thus another idol is shattered.

MEDICAL INFLUENCE AND JAPAN'S DEVELOPMENT.

In a recent interview, a rather prominent Japanese resident of New York, Dr. Takamine, whose name is well known in medicine in connection with adrenalin, taka-diastase and other preparations, is reported to have given his opinion as to the methods by which Japan was opened to the world and so successfully induced to adopt the methods of western civilization. According to him, even under the old régime when intercourse with outsiders, save in a limited way with the Dutch, was forbidden, western medicine had made its way into Japan and was exerting its influence, not only in a sanitary way, but as a general civic factor introducing occidental methods of thought and life. He points out that the personnel of the ministerial cabinets that have existed under the mikado's rule in Japan in the last thirty years, or thereabouts, have all been more or less influenced by western medicine; a very large proportion of their members, 40 to 60 per cent., were either medical men or sons of medical men, or else had been in direct contact with medical practitioners of the west. Marquis Ito, the "grand old man" of Japan, came from a family, almost every man of which has been connected with the medical profession. As the *Chicago Tribune* says, this showing is equally complimentary to the vigor of medical science and to the intelligence of Japan. It is possible that Dr. Takamine overestimates the influence of medicine in the progress of his country, but that it has been an important factor seems evident enough from the facts he adduces.

THE NEW YORK STATE MEDICAL ASSOCIATION.

Step by step the details are being completed in making the medical profession of New York one united body, which shall press on to greater achievements for the honor and triumph of medicine. The change is a great one, and perhaps—as the details have worked themselves out—it becomes more of a change to the members of the New York State Medical Association than to those of the Medical Society of the State of New York. The latter body has approved of the plan of union, and its county societies are rapidly following its lead and approving the action. On the 21st of this month the association will meet to ratify the action. This appears to some, and no doubt is in truth from one point of view, a termination of the career of the New York State Medical Association. Its name ceases, and its separate existence ends, but in a far broader and more practical sense it now enters into a new life. The New York State Medical Association has an enviable history of over twenty years which requires no apology. Organized through staunch loyalty to the national body at a time when discord rent the New York profession, it has maintained the principles of the American Medical Association these years without discredit. Through circumstances over which there appears to be almost universal congratulation, the sources of the discord have been removed. Having served faithfully as the representative of a portion of the medical profession of the State of New York, the association now steps out into the wider sphere and represents the whole profession. By remarkable liberality and courtesy, it relinquishes its own name to take another, but it is the spirit of the association which lives on. It is a noble act, one fitting to close such a twenty years' record as is now about to be handed down to history as a finished product. It is not easy to surrender the traditions of even twenty years without some pangs, and it is only natural that the members of the association—some of them more than others—feel that the sacrifice they make in this reunion is very great. It is a feeling that all will respect; but the purposes and ends of all this labor seem thus far to triumph over lesser considerations. The spirit of loyalty and of sacrifice shown by the members of the association is one of the grandest legacies which they can bequeath to the new organization. The medical profession of the whole country owes its thanks to the members of the New York State Medical Association, a body which will always have its honored place, and none the less for what sacrifice it has made, in the medical history of our country.

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[1] Münchener med. Woch., Feb. 9, 1904.

[2] Münchener med. Woch., No. 17, 1902.

HEALTH BOARDS AND POLITICS.

Boards and departments of health are generally supposed to be institutions for the protection of the public against disease and not merely political machines. This fact is recognized in some municipalities, but unfortunately not in all, as some recent experiences demonstrate. The San Francisco Board of Health, during the Gage administration in California, was a body of officials in whom the people of the country had confidence as a defense against a possible epidemic of plague and its extension from the focus that existed in the city under its sanitary control. Now matters have changed; the present mayor has at last succeeded in changing the whole personnel of the board, supplanting the former members by those who can be expected to be more subservient to his commands regardless of their duty as conservators of the public health. As an evidence of what they are willing to do at his behest, we have the general discharge of the tried employes of the former board, as shown up editorially in the February issue of the *Occidental Medical Times*. There were six cases of plague reported in San Francisco by the Public Health and Marine-Hospital Bulletin during February. The infection still exists in that city, but we have the assurance that a political partisan board, appointed in the place of the one discharged because it did its duty, has now the responsibility of the protection that the city can afford itself and the country against the scourge. Is it a legitimate assumption that they will efficiently perform the duty for the doing of which their predecessors were ousted? This is not a matter that concerns San Francisco alone; it is one for the whole country to consider. If we had to depend on the San Francisco Board of Health, appointed by and presumably in full sympathy with a mayor whose whole object and aim has been apparently to deny the existence of the plague and obstruct all efforts against its spread, we should be in a bad way indeed. Another instance of the removal of a tried official for political reasons is noted in another of our contemporaries, when the principal officer of a board of health was removed for the reason, as given by one of the politicians, that "this plum should be passed on." We might multiply examples of this sort of malfeasance in office by politicians prostituting charitable institutions to the demands of party politics and unscrupulous partisans *ad nauseam*, but it is unnecessary. That such things can occur is one of the disgraces of our times, and we would be remiss in our duty if we neglected to utter our protest. It is not the individual who suffers in these cases; it is the people as a whole, and that they do not suffer more is due to the unthanked and often gratuitous efforts of honest members of our profession to counteract the evils that follow.

SANITARY RELATIONS OF THE PANAMA CANAL.

Panama Canal problems are numerous enough, but one complicates them all, namely, the question of sanitation. It was one of the arguments used in favor of the Nicaragua route that it is comparatively healthful, and it certainly has no such record as that of the Panama isthmus. It was said that when the railroad was built across the isthmus every tie cost a human life, and the French Canal Company, which our government proposes to succeed, had a history not much more encouraging as regards the healthfulness of the work. There is no doubt that much of the mortality that went with the work of the past can be avoided in the future; that is, if the sanitary arrangements be under the absolute control of some one who understands what preventive measures are needed, and who will see that those measures are adopted. Our knowledge of tropical disorders has greatly advanced within the past few years, and the two most formidable ones to be fought on the isthmus—malaria and yellow fever—are practically under medical control. To a very great extent, the same is true of the other less serious tropical disorders; nearly all are parasitic, and may be avoided by the observance of due sanitary precautions. The isthmus itself is not so essentially unhealthy for a tropical region; the greater part of the work is in a region several hundred feet above the sea, and with good natural drainage, where the conditions are certainly as good as could be looked for in any non-mountainous tropical country subject to the rainfall that occurs at Panama. The immediate vicinity of the Caribbean terminus of the canal is low and marshy and furnishes perhaps the most serious problem of sanitation of the whole route. The region near Panama is also low but drier and more easily brought under sanitary control. In both these regions a considerable portion of the work is already done, and what remains is but a very small fraction of the whole; the bulk of the excavation, therefore, is in the higher and healthier uplands. Thus, so far as the natural conditions are concerned, there is reason to hope for a decided improvement on the record of the past. It is in the policing and control of the personnel and the enforcement of sanitary regulations, both in the canal force and among the native population, that we must look for most aid in reducing the excessive mortality of the past. With our experience in Cuba and the Philippines we ought to be better able than heretofore to satisfactorily meet the conditions, especially if the digging the canal is under military control that was elsewhere so successful. We can not expect to escape a certain amount of mortality and disability from diseases incident to a tropical climate, but there is reasonable hope that sanitary measures will reduce them to a minimum.

THE CIRCULATING MEDICAL ARTICLE.

Some months ago we commented[1] on the remarkable performance of one Plympton of Brooklyn, who succeeded in having an article on "Septicemia and the Curette" published in over a score of journals. Plympton now has a rival in this sort of notoriety. We recently were offered, by Dr. H. John Stewart or, according to some papers, John H. Stewart, an article entitled "The Finsen Light Cure"—a nicely worded advertisement for a Finsen light cure institute in Chicago. We did not accept, but we have been interested to note that the bait has been taken in different parts of the country, for already twenty journals have published the article as original. It is interesting to note that this Finsen light company is following up the free advertising accorded it in the medical journals by large displays in street cars and lay magazines, and by sending out circulars in which its confidence in the panacean qualities of the light is touching and sublime. The *Memphis Medical Monthly* notices that the article referred to has appeared in several journals, and says:

> While we can not blame an author for wishing to secure wide circulation for an article, and can see no harm in simultaneously securing publication of a deserving contribution in a local medical journal and in one of the larger weeklies, yet we must deprecate the practice which we see occasionally indulged in, as did this author. It is not that the medical journals care very much about this imposition, but it would seem to indicate that the author's fund of information is too limited to permit his adding greatly to the stock of medical literature, so he must make the most of what little he does write, however indifferent it may be in quality.

Apparently this editor had not discovered the gentleman of color in the woodpile, but the editor of the *Medical Council* had his eyes open. Under the heading of "Sold Again," he comments on the light-cure article thus:

> The same article was sent to us for publication, but we saw the nicely disguised advertisement contained in it, and suspected that it was another attempt to palm off a "multiple copy" on the medical journals as original.

The editor of the *Medical World*, when he received his manuscript of this remarkable publication, "had a suspicion that all was not straight," so he wrote to the author asking if he had sent or intended to send the article to any other journal for publication. He says he received the following letter in reply:

> You need not hesitate about printing this article, for the same article will not appear in any other journal, you having received the original and the carbon copy being still in my possession.

Perhaps it would be charitable to say that the author's typewriter answered this letter inadvertently without referring it to him. The editor of the *Medical World* apologizes to the readers of that publication for having been misled into thus imposing on them by printing the article. He gives the names of nine other journals which printed it. We had thought of doing the same with the twenty, but we forbear. Although we are ourselves by no means infallible, we may be allowed to say that in view of the fact that among the journals which have published this article were a number of the better journals of the country and three weeklies, the comment with which the editor of the *Medical Council* concludes his remarks appears to us exceedingly appropriate: "Doctors, we beseech you to examine more closely manuscripts submitted to you."

Medical News.

ILLINOIS.

Diphtheria.—Several deaths are reported to have occurred at Marquette, a village near Spring Valley.——Schools at Gilman have been closed on account of the prevalence of the disease.

Heavy February Mortality and Morbidity.—Deaths in Springfield numbered 96 for February, 60 more than for the corresponding month of last year. In February, 1903, there were 12 cases of scarlet fever, with no deaths; in February, 1904, 51 cases and 2 deaths; there were 5 cases of diphtheria and 2 deaths last month, and in the same month of 1903, 9 cases and one death; of smallpox 4 cases and one death were reported in February, 1903, while in February, 1904, only one case was reported.

Chicago.

Personal.—Drs. Herman A. White and G. Morgan Clarke have returned from Europe.——Dr. Lucy Waite has returned from Tahiti.

Assistant Superintendent Johnston Dies.—Colonel William James Johnston, a confederate veteran, and for many years assistant superintendent of St. Luke's Hospital, died March 1, from Bright's disease, aged 59.

The Week's Deaths.—The death rate for the week ended March 5 was equivalent to an annual mortality of 16.71 per 1,000. Pneumonia caused 165 of the 625 deaths; consumption, 54; heart diseases, 51, and violence, 38. The death rate for the corresponding week of 1903 was 16.45 per 1,000.

Crusade Against Spitting.—The anti-spitting ordinance is suffering its first enforcement. Many careless spitters have been arrested, and some have been fined. A few pleaded ignorance, and one of the pioneers in the anti-spitting movement is alleged to have been one of the first offenders arrested.

February Mortality.—Pneumonia caused 686 deaths; consumption, 278; heart diseases, 195; Bright's disease, 165; bronchitis, 141, and violence, 148, out of a total of 2,705 deaths, equivalent to an annual mortality of 17.92 per 1,000. This is a lower rate than for February, 1903, which was 18.30 per 1,000.

Pneumonia in Excess.—With 56 days of the pneumonia season to come, the prediction of the department of health that deaths from pneumonia would exceed 2,100, the estimated number is already passed. Up to March 5, a total of 2,186 deaths from the disease have been reported, and if the daily average be maintained, the number at the close of the season will be about 2,800, or one-third more than was estimated.

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[1] The Journal A. M. A., Nov. 22, 1902, p. 1327.

Again in Trouble.—Dr. A. W. Van Bysterveld, a practitioner said to be unlicensed, who has two offices in Chicago and one in Grand Rapids, Mich., was shot in the leg, March 8, by the father of a patient, an epileptic girl, aged 15, whom he is said to have wronged. This is apparently the "miracle-worker" of the same name who was noted in The Journal of March 21, 1903, as having been fined $100 and costs, at Grand Rapids, for practicing medicine without a license.

Free Antitoxin For Poor.—The Chicago Department of Health, in its current bulletin, makes the following announcement:

> 1. Physicians may obtain antitoxin free from the antitoxin stations of the department for the gratis treatment of their charity cases.
>
> 2. Physicians may have their prescriptions for antitoxin to use in their paid practice filled by any antitoxin station at the following (present) prices:

No. 1 (1000 units)	$0.75
No. 2. (2000 units)	1.25
No. 3 (3000 units)	2.25

The physician obtaining free antitoxin receipts for it, and the receipt contains the following certificate:

> I hereby certify that the family of this patient is unable to pay for the antitoxin; that the case is urgent; that I am attending without fee and that I will report the termination of the case on the postal-card form of the Health Department furnished by the druggist.

All cases in which free antitoxin is furnished will be investigated by the Bureau of Charities, but the antitoxin will be furnished first; the investigation will follow.

MARYLAND.

Personal.—Dr. James Bond, Westminster, who has been in Europe for the past year, has returned home.

Bills Drafted and Offered.—Bills have been drafted for presentation to the legislature for the granting of a charter to the Washington County Hospital Association, Hagerstown, for an annual appropriation from the state of $6,000 to enable the county commissioners and mayor and council of Hagerstown to levy annually for certain sums for the support of the hospital. ——Appropriations are also asked from the state for the Baltimore Eye, Ear and Throat Hospital, $10,000 for the Hospital for Consumptives near Baltimore, instead of $2,000 annually as now, and the Franklin Square Hospital, Baltimore.——A bill has been offered in the legislature prohibiting the use of wood alcohol in compounding flavoring extracts.

Appeal for Library.—In reference to the bill introduced into the legislature for an appropriation of $100,000 for purchase of a lot and erection of a fireproof building for the library of the Medical and Chirurgical Faculty of Maryland, the committee in charge has issued a circular in which occurs the following:

> ' It has taken a great many years to get this library together, and its destruction by fire would be an irremediable loss to the entire people of the state as well as to the medical profession. The grounds on which we base an appeal are that the library is an educational factor of the greatest importance; that though vested in the state medical society, it is to all intents and purposes a public medical library, being accessible to all physicians of good standing and to all students of medicine. Should this library be destroyed no amount of money could replace it, for there are many valuable works now out of print and extremely important sets that can not be duplicated anywhere.

Baltimore.

Personal.—Dr. Thomas J. O'Donnell, resident physician of St. Joseph's Hospital, was operated on for appendicitis on March 3.

February Mortality.—The mortality in February was unusually large, pneumonia, la grippe and consumption predominating. There were 203 deaths from pneumonia, against 153 for last February, and 142 from tuberculosis, against 91 for last year. The total deaths were 1,024, as compared with 862 for 1903; 750 births were reported.

Heavy Mortality for Week.—The total deaths for the week ended March 5 reached the high figure of 302, which is 100 more than the corresponding week of last year. This is equivalent to a rate of 27.97 per 1,000, or separating whites and blacks, of 24 per 1,000 for whites and 49.52 per 1,000 for blacks; 75 died from pneumonia and 90 from other affections of the respiratory organs.

Literary Fire Losses.—Among losses by the Baltimore fire were the entire unsold remainder of Professor Ashby's work on gynecology, Dr. Hubert Richardson's work on the thyroid gland, which would have been out the following week, and the current number of *American Gynecology*. All these were in the printing and publishing establishment of Williams and Wilkins, which was entirely destroyed. Dr. Richardson fortunately has the proof of his work, and thus the arduous labors he expended on it through the past several years will not be entirely lost. The Johns Hopkins Press fortunately escaped.

Johns Hopkins Losses.—At the annual meeting of the Johns Hopkins Hospital trustees, held March 3, it was definitely announced that John D. Rockefeller had sent an agent to investigate the needs of the hospital. Nothing definite, however, in the way of an offer of assistance was made. The announcement was made that $60,000 of the annual income of the hospital had been cut off by the fire. This is the nearest approach that can be made at present to the loss; committees have been appointed to investigate the exact figure and also the insurance. Dr. Hurd, superintendent, stated that the needs of the institution had been presented to Mr. Rockefeller by Dr. William H. Welch. Sixty-four buildings belonging to the hospital were destroyed, on which only 80 per cent. of the total amount of insurance carried can be gotten. "There is a disposition on the part of the trustees," said Dr. Hurd, "to go ahead with the work of the hospital in spite of the loss incurred." Judge Henry D. Harlan was re-elected president of the board.

MASSACHUSETTS.

Personal.—Dr. A. Everett Austin, Boston, of the faculty of Tufts College Medical School, will spend the next seven months in study in Ludwig's bio-chemical laboratory at Vienna.

Thousands for Crippled Children.—The fair held at Hotel Somerset, Boston, by the Back Bay ladies on March 3 and 4, netted the Industrial School for Crippled and Deformed Children $7,000.

Senate Kills Bill.—The senate has voted not to pass a bill which had the approval of the house but the opposition of the public health committee, to further regulate the examination of bodies before embalming and burial.

Pauper Institutions Need Money.—The trustees of pauper institutions in Boston, in support of their pleas for an appropriation of $187,000 for this year, state that they have now under their care 830 sick or destitute people, 80 per cent. of cases admitted during the last year having been sent directly to the hospital, which must soon be enlarged.

Embezzlement Cripples Consumptive Home.—St. Luke's Home for Consumptives, Roxbury, is seriously embarrassed by reason of the embezzlement of at least $34,000 of its funds, and probably many thousands more, by its treasurer, Wallace H. Ham, who also took almost $200,000 from the American Surety Company. This home has done a good work in caring for this class of patients for which the city of Boston officially does so little.

Against Restriction of Animal Experimentation.—Vigorous efforts to introduce in the legislature a bill to further restrict animal experimentation in Massachusetts were combated before the committee on probate and chancery by the able arguments of Prof. H. C. Ernst, who represented officially Harvard Medical School, Tufts Medical School, Boston University Medical School, the Massachusetts Institute of Technology, Clark University, and various other educational institutions in the state and also local boards of health. He presented a protest signed by thirty-one of these boards in cities and towns.

NEW YORK.

Smallpox has again appeared at North Tonawanda and Niagara Falls.

Three More Ratifications.—In addition to the fourteen county societies mentioned last week, the Montgomery, Orange and Rockland county medical societies have ratified the plan of union of the New York State Medical Society and the association.

Personal.—Dr. Joseph A. Lanahan, Albany, has been made a member of the staff of the State Hospital for Insane Criminals, Dannemora.——Dr. Warren L. Ayer has been made health officer of Owego.——Dr. Martin S. Reed has been reappointed health officer of Coeymans.

For Study of Defectives.—A bill to establish a laboratory for the study of the criminal pauper and defective classes is proposed to be introduced in the legislature. Such a bureau would have for its purpose the gathering of data of sociologic, pathologic or abnormal conditions.

Crippled Children's Hospital Report.—The New York State Hospital for the Care of Crippled and Deformed Children, Tarrytown, recently has sent out its report for the year ended September, 1903. Dr. Newton M. Shaffer of New York is surgeon-in-chief of the hospital, and Drs. Roswell Park and Charles G. Stockton of Buffalo are on the consulting staff. The board of managers express the wish that the names and addresses of poor children who are crippled and deformed be sent to the surgeon-in-chief at Tarrytown.

Buffalo.

Personal.—Dr. Harvey R. Gaylord has returned from Europe. ——Dr. Albert H. Briggs was appointed grand state medical examiner of the A. O. U. W.——Dr. Chauncey P. Smith recently fractured his left leg by slipping on an icy sidewalk.

Report on Cancer Research.—The fourth annual report of the work of the cancer laboratory of the New York State Board of Health conducted at the Gratwick Research Laboratory University of Buffalo for a period beginning in 1902 and ending in 1903, was transmitted to the legislature. It contains the report of the director, Dr. Roswell Park, and several scientific papers, all pertaining to investigations bearing on the question of cancer. Many of the papers are illustrated with microphotographs.

Oppose Optometry Bill.—The Buffalo Academy of Medicine has been informed that a number of physicians have signed postal cards circulated by opticians favoring the passage of their bill now before the legislature as Senate Bill No. 378. A closer examination of this bill shows that it is a permission to practice medicine. It has been condemned by resolutions of the New York State Medical Society, by the Buffalo Academy of Medicine, and by the medical press. The Buffalo Academy of Medicine has recommended that the medical profession write personal letters to their representatives at Albany in opposition to this bill.

New York City.

Personal.—Dr Joseph Brown Cooke has been appointed adjunct professor of obstetrics in the New York Polyclinic.

German Hospital Bequest.—By the will of John Schultheis, who died February 4, $1,000 is bequeathed to the German Hospital, Williamsburg.

Pneumonia Season Mortality.—During the current pneumonia season, from November 1 to March 5, New York reported 26,195 deaths, 5,506 being due to pneumonia, and 2,908 to tuberculosis.

Club Rooms and Library Opened.—The Eastern Medical Society of the City of New York opened its library and club rooms March 1. Addresses were delivered by Drs. Abraham Jacobi, Kenneth W. Millican and Joseph D. Bryant, and a concert and supper followed.

Pneumonia and Consumption.—For the week ended March 5, 1,800 deaths were reported, 460 of which, or 25.5 per cent., were due to pneumonia, and 188, or 10.4 per cent., to consumption. Bellevue Hospital has about 300 cases of pneumonia, and other hospitals have a proportionate number. At Bellevue the influenza bacillus was found in about 70 per cent. of the respiratory cases.

May Remove Consumptives' Home.—On the complaint of neighboring property holders that the Consumptives' Home, Brooklyn, is a menace to their health, Assemblyman Remsen has introduced a bill authorizing the commissioner of health to investigate the conditions at the institution, and, if he sees fit, to provide for the removal of the inmates to some other place provided by the trustees.

Regret Dr. Weir's Retirement.—On the retirement of Dr. Robert F. Weir from the chair of surgery, which he had held for ten years, the faculty of the College of Physicians and Surgeons unanimously passed resolutions setting forth the eminent services rendered to his alma mater by Dr. Weir, during the thirty-six years of his official connection with the institution, and eulogizing him as teacher, surgeon, and man.

Dinner to Dr. Roosa.—On March 1 about 400 physicians, representing the cis-Mississippi division of the United States, met at a dinner at Delmonico's in honor of Dr. D. B. St. John Roosa, and to commemorate the twenty-one years since the inauguration of postgraduate medical instruction in this country. Dr. William Osler, Baltimore, presided, and at the speaker's table were seated Drs. Roosa, William T. Bull, New York; Clarence J. Blake, Boston; William M. Polk, New York; William J. Mayo, Rochester, Minn.; John H. Musser, Philadelphia; Maurice H. Richardson, Boston; Edward G. Janeway, New York; William W. Keen, Philadelphia; Robert F. Weir, New York; William H. Welch, Baltimore, and John A. Wyeth, New York. A massive silver loving-cup was presented to Dr. Roosa, Rev. Dr. Vincent making the presentation address. Dr. Osler reviewed medical progress for the last twenty-five years, and suggested the following steps in advance which ought to be taken: Third and fourth year students should have the right to pursue their studies in hospitals; a better equipment and more schools for scientific investigation should be provided; interstate reciprocity of medical licensure is essential, and consolidation and unification in medical teaching is the fourth improvement needed. He prophesied that in ten years there would be only one medical school in New York. Dr. Clarence J. Blake, Boston, introduced as a "special specialist," spoke on the need of postgraduate instruction for the specialist, and suggested that the present practice of specialties contained an element of danger to the public by reason of the lack of a proper standard of instruction. Dr. William W. Keen, Philadelphia, in his address on "The Necessity for Increased Endowment for Medical Institutions," referred to the increased commercial value to the people at large of the work of the physician and cited as examples modern sanitation in Cuba, with its practical abolition of yellow fever; the diminution of susceptibility to bubonic plague, smallpox and malaria. He referred to the work of the profession in the direction of preventive medicine, and gloried in the fact that the medical profession was the only one on the earth which was bending its energies toward self-destruction. He called attention to the fact that the endowment for theological schools amounts to $2,250 for each student, while the endowment for medical schools amounts to only $83 per student. Dr. William M. Polk, New York, called medical teaching as it exists in most institutions an absolute farce, because in many of its branches it is conducted solely for the benefit of the teacher. The public should be made to appreciate that it is absolutely necessary to use the human body to obtain the very essence of that knowledge necessary to make medicine a perfect work. Civic pride in medical institutions did not exist, because the institutions had not yet reached the requisite condition of efficiency. Dr. Roosa, in conclusion, said:

> To men of great affairs in trade, commerce and politics the medical profession sometimes may seem inferior. We may perhaps be thought mere hewers of wood and drawers of water to the priests and Levites who minister at the great temples of the world, but not so. We can very properly compare ourselves to the engineers and stokers of a great man-of-war, or better, a great transport of passengers and freight.
>
> We are not seen, we are grimy and often worried with the struggle, but it is we who keep down the epidemics, who prevent cholera from coming to our shores, who stamp out yellow fever, and who are planning that that day shall come foretold by the prophet 2,000 years ago, "when no man shall say that I am sick," but, like the one-hoss shay, shall finally, in the fruition of his days, pass into the other life by a general breaking up, no one part failing before the other, and so cease to exist.

OHIO.

Personal.—Dr. Samuel S. Wilson, Xenia, president of the Greene County Medical Association, has gone to Cuba for a month.——Dr. S. D. Clayton, Cincinnati, has been appointed to the Board of Pension Examiners to fill the vacancy caused by the death of the late Dr. Spencer. Dr. P. S. Connor, Jr., Cincinnati, has been appointed district physician in place of Dr. Harry Thomas, resigned.

Typhoid in Cleveland.—On March 1 51 cases of typhoid fever were reported, the largest in any one day in the history of the present epidemic. During February 465 new cases were reported, with 45 deaths. The epidemic is believed to be due to polluted lake water, the new tunnel not being as successful in supplying pure water as was expected. The health officer favors a filtration plant, but is opposed by the city officials and council.

Medical Semi-Centenary.—Dr. Benjamin R. McClellan, Xenia, entertained the Greene County Medical Association and a number of invited guests from other cities at a dinner given in honor of the fiftieth medical anniversary of his father, Dr. Harvey B. McClellan. Dr. Clark M. Galloway, Xenia, officiated as toastmaster. Drs. Starling Loving, Columbus; Isaac Kay, Springfield; Hudson B. Stevens, Columbus; John C. Reeve, Dayton, and Thad A. Reamy, Cincinnati, responded to toasts, and the guest of honor was the last speaker.

Jewish Hospital Improvements.—Plans are being drawn for a number of improvements to be added to the Jewish Hospital, Cincinnati. These consist of a nurses' home, a large power plant, which will supply the energy for heat and light to the hospital and its supplemental buildings, as well as for the Home of the Jewish Aged and Infirm situated near the hospital. The most important of the new buildings will be a children's hospital of large size. The cottage plan of building will be the one used. This work will all be done by private subscription, and already large sums have been donated by the wealthy residents of the city.

PENNSYLVANIA.

Philadelphia.

Quarantine Lifted.—The quarantine on the medical department of the Episcopal Hospital established several weeks ago has been lifted, and general work in this department is again established.

Small Fire in Hospital.—On March 5 a fire occurred in the drying room of the laundry in the Kensington Hospital for Women. The flames, however, were early controlled, and little damage was done.

Wholesale Vaccination.—Dr. Thomas J. Beattie, assistant medical inspector, accompanied by a corps of 42 vaccination physicians, recently raided the foreign quarter of the city and vaccinated over 600 persons, mostly children of school age.

Will Not Sue for Water Pollution.—There is no foundation for the report that proceedings were instituted in behalf of Philadelphia against Norristown and other municipalities which are believed to pollute the Schuylkill River by emptying drainage into it. Dr. Alexander C. Abbott, chief of the bureau of health, has advised that no steps be taken in this direction.

Baby-farmers Arrested.—During the past week three more proprietors of the so-called "baby farms" were arrested in this city. During the past year 60 infants have been found on doorsteps, or dead in vacant lots. The authorities believe that many of these foundlings come from these dens and not from individual homes, as was formerly supposed. It is also believed that many of these infants are used for blackmailing purposes, while others are disposed of by different means.

Reception to Ridlon.—The Epsilon Chapter of the Alpha Kappa Kappa of Jefferson Medical College, gave a reception in honor of Dr. John Ridlon, Chicago, at their chapter house, February 29. The members of the faculty of Jefferson Medical College and men prominent in the medical profession of the city were present. On March 1 Dr. Ridlon held a clinic in the Jefferson Medical College Hospital before a large audience. He performed an operation for congenital dislocation of the hip by the Lorenz method.

Against Tuberculosis.—Dr. Lawrence Flick, head of the Phipps Institute and the White Haven Sanitarium for Consumptives, addressed the Civic Club at the College of Physicians. He urged the necessity for the registration of tuberculosis, and the necessity for disinfection for both the incipient and advanced stages, and said that Philadelphia is the only city of its size in the world which has not entered as a municipality into the efforts of stamping out the disease. He said that Philadelphia was the chosen rostrum from which the world was taught how to combat tuberculosis, but yet the municipal government had never appropriated one penny toward the advancement of the work. The Civic Club has promised to advance the cause of the crusade against consumption by legislation and by advancement of public spirit in its favor.

Personal.—Dr. Charles B. Penrose was unanimously elected a member of the governing body of the Academy of Natural Sciences, to fill the vacancy caused by the resignation of Charles Cramp.——Dr. Max H. Bochroch, chief demonstrator of neurology in the Jefferson Medical College, has been elected chief in the neurological department in St. Joseph's Hospital.——Dr. Edward E. Montgomery held a public clinic at the Philadelphia Hospital, February 27, before a large audience. He performed the Doyen operation of hysterectomy for multiple fibroid tumors of the uterus. This was Professor Montgomery's first appearance before the class since he resigned ten years ago. It was stated in his introduction that he performed the first successful public ovariotomy in Philadelphia in 1879, and the first ovariotomy performed in the Philadelphia Hospital.

Health Report.—Typhoid fever still prevails throughout the city to an alarming extent; 195 new cases have been reported during the week ended March 5. This is the largest number recorded for several years. Every ward of the city, except three, is infected. The source of infection is said to be due to the disturbance of the water supply by the recent freshets. The health authorities have issued bulletins advising that all water be boiled. The figures reported show an increase of 47 over those of last week. The deaths from the disease were 19. The reports of contagious diseases for the week are: Diphtheria, 62 cases, 10 deaths; scarlet fever, 89 cases, 8 deaths; smallpox, 33 cases, 6 deaths; typhoid fever, 195 cases, 19 deaths. The total number of deaths from all causes was 628, a decrease of 65 from those of last week, and an increase of 14 over the corresponding period of last year. Pneumonia heads the list with 116 deaths; consumption caused 64 deaths; heart disease, 50, and Bright's disease, 40.

GENERAL.

Anniversary of First Demonstration of Cystoscope.—The twenty-fifth anniversary of the first demonstration of the cystoscope by Prof. Max Nitze, Berlin, occurred March 9 and was celebrated appropriately by Dr. Nitze's confrères in Berlin. An address was presented, signed by appreciative practitioners in the line of genito-urinary diseases. A cablegram was sent from New York, congratulatory to Professor Nitze, and because of the lateness of notification, the names of those who wish to sign the congratulatory address are to be forwarded to be appended *post festum*. Dr. Ferd. A. Valentine, 31 West 61st Street, New York City, has accepted the invitation of the Berlin committee to forward the names of American pupils and friends which shall be sent to him for that purpose.

CANADA.

Outbreak of Smallpox.—Twenty-three cases of smallpox are reported in Kingsey township, near Sherbrooke, Quebec.

New Hospital Wing.—A new wing has been added to the Charlottetown, P. E. I., hospital, fully equipped for surgical operations, and also for the care of patients with infectious diseases.

Demonstrator of Anatomy at Queen's University.—A special demonstrator in anatomy will be appointed to devote his whole time to the work. He will have the standing of lecturer and will in time be given a professorship.

Jeffrey Hale Hospital, Quebec.—The annual report for the year 1903 shows in the private and public wards 147 surgical, 221 medical, and 135 ophthalmic cases treated; total 503. In the outdoor departments 1,800 patients were treated.

Personal.—Dr. A. D. Blackader, Montreal, has returned from Bermuda, where he spent two months. He is much improved in health.——Dr. George N. Murphy, St. John's, Newfoundland, and his brother, Dr. Charles R. Murphy, Windsor, N. S., have gone to New York for postgraduate work.

Results with Marmorek's Serum in Montreal.—Some time ago Dr. Marmorek's serum was given a trial in the Notre Dame Hospital, Montreal, on one surgical case and on one of tuberculosis of the lungs. The results in the first case were nil, there being noticed neither good nor bad effects. In the lung case the results were bad; the patient received in all nine injections. The sputa were weighed every day during the injections and showed a daily increase up to two ounces on the ninth day. At the beginning of the treatment the patient weighed 118 pounds. After the ninth injection there was a loss of three pounds, and the cough increased and was more harassing. The treatment was then discontinued at the patient's own request.

Dissecting Material in Ontario.—A bill came before the Ontario legislature last week of more than ordinary moment to the medical student body. It was designed to prevent the handing over of the bodies of people who die in houses of refuge to the medical colleges for dissecting purposes. As the law now stands bodies must be claimed by friends within twenty-four hours or else they go to the dissecting table. The promoter of the bill stated that the lives of the inmates were rendered anxious over the disposal of their bodies in case of death, and he wanted the matter left in the hands of the warden of each county and the manager of each institution. The medical men in the legislature opposed the bill on the ground that it would cut off from 40 to 50 per cent. of the dissecting material, and that if the bill became a law, it would be sure to be productive of the former practice of stealing bodies. At present the bill is before a committee.

FOREIGN.

Money to Oxford.—A studentship in pathology in Oxford University, England, is to be established with $6,000 given by Mr. Philip H. Walker.

New Buildings at Cambridge.—A number of new buildings were opened for use at Cambridge University, England, March 1, including the new medical school building.

Official Inspection of the Paris Hospitals.—Nine inspectors have been appointed who are to be delegated to spend ten days each in the Paris hospitals in turn to inspect the working of the establishment and suggest measures for retrenchment of expenses, as well as other points to which attention should be directed.

Sanitary Reforms at Madrid.—The Spanish government has appropriated nearly half a million dollars for reforms at Madrid. The committee entrusted with the task of deciding the measures to be adopted reports in favor of establishing a disinfecting plant, repairing the pavements and improving the water-bringing plant and "East park," and devoting half the sum to the construction of three public school buildings.

Exhibition at International Congress of Ophthalmology.—Prof. A. Siegrist of Berne, Switzerland, has charge of the preparations for the appropriate exhibition of all scientific apparatus, instruments, and the various appliances for instruction, which will be sent to the Tenth International Congress of Ophthalmology, to convene at Lucerne, Sept. 18, 1904. He, therefore, requests all colleagues, as well as all scientific, optical, and mechanical firms who wish to exhibit any objects at the congress to apply to him before July 1, 1904, giving an exact statement of the object to be exhibited, of the space demanded, and of the kind and strength of electric force which may be required. Articles announced later can be accepted only so far as the space at disposal will still allow at that late date.

Health in Word and Picture.—This is the title of a new German ten-cent monthly magazine recently founded at Berlin which proposes to supply the reading public with popularly written articles on scientific medicine. The first number contains articles by Kassowitz of Vienna, on children's diseases, by Pelman of Berne, the psychiatrist, and by Casper of Berlin, the urologist. The title in German is *Gesundheit in Wort und Bild.* The periodical is founded by Drs. Weissbein and Lipliawsky, who already issue the *Russiche med. Rundschau* at Berlin and *Therapia* at St. Petersburg. They have also founded at Berlin a "consulting institute" for Russians. Persons arriving at Berlin wishing to consult physicians but unacquainted with any language but Russian, apply to this institute for information and advice. They are thus saved from falling into the hands of charlatans.

Student Riots in Paris.—The medical students of Paris are making an energetic protest against the proposed abolition of the age limit for university professors, and also against the changing about of professors from one chair to another. They have refused to allow a single professor to lecture since the senate adopted a resolution in favor of abolishing the age limit. After first informing the professor that the manifestation is not against him personally, they proceed to make such a noise, hooting and yelling, that he is unable to proceed. These scenes of violence have been repeated in every amphitheater, and have been followed by several acts of vandalism. Their motto is "Room for the young"; and they proclaim that they do not want driveling old men for their instructors. In regard to the frequent changing of chairs they mention as an instance that Chantemesse, who has been studying serums for ten years, has just been abruptly transferred to the chair of anatomy. This custom of "permutations" is peculiar to France, we understand, and the students consider it a disgrace to science, as no man can be equally eminent in and devoted to more than one specialty at a time. They do not want a teacher whose heart is not in his work.

Homage to Professor Bouchard of Paris.—Nearly the entire number of the *Presse Médicale* of February 24 is devoted to the ceremonies connected with the presentation to Professor Bouchard of a portrait medal. He is regarded as a typical example of all that there is of beautiful, noble, useful and beneficent in the science and art of medicine at the opening of the twentieth century. The manifestation of homage to him thus corresponds, the editor remarks, to one of the most beautiful periods in the history of medicine, and the addresses made are full of interest to all practitioners of medicine at home and abroad. Bouchard has been the representative of France at numerous foreign congresses and delegates from the various countries had assembled with his friends and those who had felt his influence in their professional career. His tact and prudence, his luminous and sound opinion on medical matters and his farsightedness and kindliness were extolled. In the closing words of his acknowledgment of all this homage, he summarized his "medical faith" in the six maxims: "Seek truth. Discover causes. Learn how they disturb life, and how order is re-established. By science and persuasion preserve men. By science, gentleness and firmness combat death and reduce suffering. Guide, encourage and console in a brotherly and tolerant spirit. C'est la Médecine."

Correspondence.

Duration of Life After Fatal Injuries.

Madison, Wis., March 5, 1904.

To the Editor:—In The Journal, March 5, a letter by Dr. H. D'Arcy Power of San Francisco brings to mind the following: At the time of our capitol disaster I was early on the scene; one of the first of the injured to be brought out was the foreman. He was immediately removed to a building nearby. On examination, I found his injury a fatal one, the entire calvarium being fractured and cleanly driven through the brain to the base of the skull. Respiration was normal, the respiratory center being uninjured. On endeavoring to raise the fragments respiration ceased, to be immediately resumed when left undisturbed. He lived three hours after receiving his injury.

J. A. Mack.

Eyestrain as a Cause of Headache and Other Nervous Symptoms—A Question of Precedence.

New York City, March 3, 1904.

To the Editor:—In your issues of Jan. 16 and Jan. 23, 1904, Dr. George M. Gould publishes an interesting article concerning the dependence of "Migraine" on eyestrain. In this article he goes extensively into the history of the literature relating to this distressing and extremely common malady.

In this connection he makes the most remarkable statement regarding a contribution of a French oculist to this field. He says (italics are my own):

> In 1888 Dr. G. Martin (*Ann. d'Oc.*), a French oculist, published an article which *some time will be recognized as truly epoch-making.* But two writers, as far as I have noticed, have even mentioned Martin's magnificent and daring attempt to bring the medical world to its senses.

A compiler should certainly have shown more care than Dr. Gould appears to have shown in reviewing medical literature, before he ignores the work of his own countrymen and gives credit for "epoch-making" to a French author who simply confirmed observations that had been made many times before, and who supported views that had been fought for for years in America by myself and others.

If Dr. Gould had simply taken the trouble to look up medical literature on this subject prior to 1888, he would have found in the *New York Medical Journal* of 1886 an article by myself entitled "The Eye as a Factor in the Causation of Some Nervous Symptoms," and in the *Medical Bulletin* of September, 1887, an article by myself entitled "Eyestrain in Its Relation to Functional Nervous Diseases"; and in the *New York Medical Journal* of April, 1887, an article by myself entitled "Eyestrain in Its Relation to Neurology." Had he looked over the text-books on nervous diseases, he would have found that my large work entitled "Lectures on Nervous Diseases" (F. A. Davis, Phila., 1888), antedated Dr. Martin's article. This work contained the first résumé of eyestrain ever published; as a factor in causing not only migraine, but other equally common nervous symptoms, such as sleeplessness, neuralgias, chorea, epilepsy and insanity. At least one hundred pages in total were devoted by me to the eyestrain directly or indirectly.

From 1880 to 1883 I made my early combats for the eye treatment of headache before the New York Academy of Medicine and the Neurological Society of New York. During the same period of time (which antedates Dr. Martin's article by some years), I also made this subject an important part of the courses of lectures delivered by me each year before the students of the Postgraduate Medical School and Hospital of New York and also before the classes of the University of Vermont. I based these lectures and discussions on my own remarkable restoration to health from a condition of hopeless physical collapse through the detection and correction of latent hypermetropia. This had escaped recognition by means of the ophthalmoscope in the hands of three of the leading ophthalmologists of that period. As careful refractive work was done by me for headaches as early as 1880 as is done to-day.

Again, Dr. Gould can not be unaware of the fact that the prize offered by the Royal Society of Belgium for the best original essay on the treatment of epilepsy was awarded in 1886 to Dr. George T. Stevens of New York for a contribution by him, in which eye treatment alone was employed in that disease, and in which the relationship of eyestrain to headache was mentioned, if my own memory serves me correctly, on several pages. The essay was published in English by D. Appleton & Co. of New York in 1887.

In closing, I would say that I deem it a proper time to raise my voice in earnest protest against the method (too commonly in vogue to-day) of giving undue credit to foreign authors for pioneer work in new fields to the exclusion of Americans, who have sounded the first keynote in many of the great discoveries in medicine. It is not only unpatriotic, but it is unjust to forget or to ignore the early struggles that were made to establish on its present footing the view that "eyestrain is one of the most prolific sources of functional nervous derangements." A. L. RANNEY, M.D.

345 Madison Avenue.

Queries and Minor Notes.

ANONYMOUS COMMUNICATIONS will not be noticed. Queries for this column must be accompanied by the writer's name and address, but the request of the writer not to publish his name will be faithfully observed.

ALKALINE TREATMENT OF HYPERACIDITY.

A TOLEDO, OHIO, CORRESPONDENT, whose language indicates that he is not a physician, writes with enthusiasm of a physiologic discovery he has made of a self-curative process in his own nature. His method is "simply to excite and swallow a copious flow of saliva, by mechanical compression and self-suction of lips and gums, whenever 'rising of the bile' causes sudden nausea and disposition to vomit; that is, in all cases of 'biliousness' as commonly designated." He is over 60 years of age, and for more than thirty years has been "troubled often with sudden sick spells of rising bile—biliousness—that would last for hours or even days, and would necessitate treatment with alteratives, purges, emetics, etc." "Scarcely a month would pass without one or more of such attacks, until about eighteen or twenty months ago, when this discovery was first made and utilized." Since that time, he says, every attack is dispelled as suddenly as it appears, there are no ill effects and no [other] medicine is required, "no matter how extreme the sudden sickness or how apparently overwhelming the disposition to vomit." Our correspondent's trouble may be hyperacidity of the stomach; he says the "spells come on some time after eating, on an empty stomach, often at night in bed before going to sleep, and sometimes awakening me from sleep." The alkaline treatment of hyperacidity is certainly "physiologic" and "natural," for the alkaline saliva neutralizes the acid secretions of the stomach, but the method is not new. Physicians make use of a dilute solution of bicarbonate of soda—a most efficacious remedy for the symptoms described—but some practitioners suggest the chewing of gum, which increases the flow of the alkaline saliva into the stomach.

THE CHRISTIAN HOSPITAL AGAIN.

HOLLINGER, ALA., March 3, 1904.

To the Editor:—Please inform me about the Christian Hospital membership. Is it any good, or is it only a fake to make money? They have sent me a skeleton certificate with a formidable array of signatures. I would like to have one if it is any good. Eight, ten and twelve dollars are the fees quoted. J. N., M.D.

ANNISTON, ALA., March 4, 1904.

To the Editor:—I enclose some circulars recently received. There may be some gullible enough to be taken in by this kind of an institution. ALLEN A. GREEN.

ANSWER.—We respectfully refer the above and others to THE JOURNAL, May 23, 1903, p. 1443, June 6, 1903, pp. 1587 and 1591, where this scheme was exposed. Evidently these people are "hard at it" again, for every mail is bringing us communications similar to the above, and usually we are favored with the circulars, including those which show the beautiful diplomas that are supplied so cheaply. We note that Dr. John B. Murphy's name is prominent on the diploma, although another name is substituted with a rubber stamp.

MADSTONES.

SNYDER, OKLA., March 1, 1904.

To the Editor:—Will you give some information of the madstone, which so many of the laity believe to be a cure-all for hydrophobia? What is it? M. A. J.

ANSWER.—Madstones are simply porous stones without any special powers excepting those of absorption. Perhaps in some cases they may be like the snake stones of India, as shown by Faraday, and still more recently by Watkins-Pitchford (*Br. Med. Jour.*, Feb. 20), occasionally composed of calcined bone and thus may have a little of the absorbent action of animal charcoal. As the great majority of the persons bitten by so-called mad dogs are not likely to have hydrophobia, they can get up a certain amount of reputation for madstones very easily and the psychic or suggestive action may in some cases be of value in nervous people.

LITERATURE ON HOUSE SEWERAGE.

ALLENTOWN, PA., Feb. 29, 1904.

To the Editor:—I am associated with some friends who are about to ask our city for a franchise to build a house-sewerage system here. Where can I obtain the desired information how to educate the masses through the public press, i. e., what books, writings, etc., are to be had? I. F. H.

ANSWER.—Two of the best books on sewage disposal are "Sewage and Bacterial Purification of Sewage," by Samuel Rideal, John Wiley and Sons, New York, $3 50; and "Sewage Disposal Works," by Santo Crimp, London, C. Griffin & Co., $6.00. Other useful works are "Sewerage," by A. Prescott Folwell, John Wiley and Sons, $3.00, and "Sewage Disposal," by Wynkoop Kiersted, John Wiley and Sons, $1.25. Most of these books have gone through several editions and the latest issued should be obtained.

THE N RAYS A NEW MEANS OF DETERMINING DEATH.

VERA CRUZ, MEXICO, March 2, 1904.

To the Editor:—Do only living bodies emit N rays? In this case shall we not have in that property a new and decisive proof to ascertain the death? CARLOS MANUEL GARCIA.

ANSWER.—Some of the investigators have so asserted. It may be, however, that in the state of "trance," with all functions almost entirely suspended, the production of N rays will also be suspended and the test fail. Those who wish to read about N rays are referred to THE JOURNAL, Jan. 23, 1904, p. 275, abstract 59, and Feb. 6, 1904, p. 404, abstract 14, where articles are referred to. See also foreign abstract No. 34 next week.

PRACTICE IN INDIAN TERRITORY.

CARROLLTON, KY., March 1, 1904.

To the Editor:—Will you let me know through THE JOURNAL the requirements of the laws that govern the practice of medicine in the nations of the Indian Territory? M.D.

ANSWER.—In the Creek nation an authentic diploma or examination is required; in the Cherokee and the Choctaw nations an examination.

THIOSINAMIN FOR REMOVING SCAR TISSUE.

DR. L. F. GULDNER, Davenport, Iowa, asks how much value there is in thiosinamin applied hypodermatically and locally to remove scar tissue, such as the induration remaining after a boil.

ANGLO-AMERICAN MEDICAL ASSOCIATION, BERLIN.

L. A., Atlanta, Ga., writes for the address of the above, and is referred to THE JOURNAL, Jan. 30, p. 320, and Feb. 20, 1904, p. 545.

Marriages.

WILLIAM HERBERT GRANT, M.D., to Miss Edith A. Borchardt, both of Boston, February 22.

JOSEPH H. BOGLE, M.D., Fyffe, Ala., to Miss Eula Whorton, of Centre, Ala., February 25.

GLENN HENLEY, M.D., to Miss Margaret May James, both of Fairmount, Ind., February 26.

DAN HAZEN MOULTON, M.D., to Miss Flora Meister, both of Sacramento, Cal., February 24.

GEORGE S. MURRAY, JR., M.D., to Miss Jennie E. Haight, both of Crescent, N. Y., February 24.

GEORGE A. PAZDRAL, M.D., to Miss Julia Sladek, both of Fayetteville, Texas, February 16.

FRANK A. BATTON, M.D., Clarksville, Ohio, to Miss Otta Smith of Milford, Ohio, February 23.

JAMES WILSON CROFT, M.D., Corning, Ohio, to Miss Mary C. Glick of Columbus, Ohio, February 23.

ELWOOD ROBISON, M.D., Rossville, Ind., to Miss Zella Van Why of Michigantown, Ind., February 17.

FRANCIS SEALS BELCHER, M.D., Mansfield, Ga., to Miss Rena Maude Starr of Starrsville, Ga., February 24.

Deaths.

Ogden Curtis Ludlow, M.D. New York University, 1883, a member of the American Medical Association, and section reporter for several years; a member of the New York State Medical Association; secretary of the New York County Medical Association; a member of the Society of Alumni of St. Luke's Hospital, died March 2 at his home in New York City, from typhoid fever contracted while in attendance on the meeting of the New York State Medical Society in Albany, last January. The immediate cause of death was hemorrhage from a perforating ulcer. Dr. Ludlow was the New York correspondent of The Journal, and had filled this position acceptably for a long time. He possessed to an unusual degree the faculty of extracting the pith of articles and discussions.

Jefferson Cushing Gallison, M.D. Boston University, 1875, College of Physicians and Surgeons, Boston, 1888; Tufts College, Boston, 1894; Harvard University Medical School, Boston, 1895; a member of the legislature; demonstrator of anatomy at the College of Physicians and Surgeons from 1889 to 1892; lecturer on surgical pathology at Tufts Medical College, 1893; member of the Massachusetts Medical Society and of the Thurber Medical Society, died from heart disease at his home in Franklin, Mass., February 22, aged 62.

Dallis M. Wick, M.D. Chicago Medical College, 1874, a member of the American Medical Association; second vice-president of the Iowa State Medical Society; member of the Iowa State Association of Railway Surgeons, and the Austin Flint and Blackhawk county medical societies, one of the prominent physicians of northwestern Iowa, died at his home in Cedar Falls, March 1, after an illness of several months, aged 63.

William Rankin, Jr., M.D. College of Physicians and Surgeons, New York, 1871, for many years secretary of the Newark Charitable Eye and Ear Infirmary, a member of the American [illegible] Association, the American Otological Association, [illegible] Society of New Jersey, and the Essex District Medical Society, died at his home in Newark, N. J., February 25, after an illness of one week, aged 53.

Guy B. Case, M.D. University of Wooster, Cleveland, 1873, a member of the American Medical Association; professor of dermatology and venereal diseases at the Cleveland College of Physicians and Surgeons; one of the prominent physicians of Cleveland, died at his rooms in that city, February 26, from pneumonia, aged 52.

Arthur Collis Gibson, M.D. Medical School of Maine, at Bowdoin College, Brunswick, 1885, member of the Maine Medical Association, and of the Penobscot County Medical Association, died from septicemia, due to an ulcerated tooth, February 21, after an illness of eight days, at his home in Bangor, Maine, aged 43.

David L. Wallace, M.D. Bellevue Hospital Medical College, New York, 1875, a member of the American Medical Association; for many years secretary of the Newark Board of Health, died at his home in Newark, N. J., February 29, from eumonia, after an illness of four days, aged 48.

William W. Highlands, M.D. Medical College of Ohio, Cinnnati, 1850, the oldest physician in Hamilton County, Ohio, died, February 29, at his home in Newtown, aged 81. He served as surgeon in the Civil War, and in 1883 was a member of the Ohio State Legislature.

Thomas S. Galbraith, M.D. Medical College of Ohio, Cincinnati, 1866, formerly superintendent of the Central Indiana Hospital for the Insane, Indianapolis, and of the Oklahoma Insane Hospital, Norman, died at his home in Seymour, Ind., February 23.

Howard C. Russell, M.D. University of Pennsylvania, Philadelphia, assistant surgeon U. S. P. H. and M. H. Service, stationed at New York, died at the Marine Hospital, Stapleton, Staten Island, from pneumonia, after a short illness, March 2.

John H. Bledsoe, M.D. Memphis (Tenn.) Medical College, 1896, secretary of the Chambers County Medical Society, and a member of the Medical Association of the State of Alabama, died at his home in Lafayette, Ala., January 4, aged 29.

Elbridge G. Hard, M.D. Cleveland Medical College, 1850, surgeon to the First Ohio Light Artillery in the Civil War, died at his home in Medina, Ohio, February 28, from malignant disease of the neck, after a long illness, aged 77.

William F. Buchanan, M.D. University of Pennsylvania, Philadelphia, 1862, assistant medical director in the Civil War, and afterward in the regular establishment until 1867, died at his home in Philadelphia, February 16.

James E. Magee, M.D. Western Pennsylvania Medical College, Pittsburg, 1892, of Seneca, Pa., died recently. The Oil City Medical Club furnished pall-bearers for the funeral and drafted resolutions of regret.

William M. Burgess, M.D. Louisville Medical College, 1882, of El Paso, Texas, was, it is feared, one of the unidentified victims of the Iroquois Theater fire in Chicago, Dec. 30, 1903.

Jacob Allen Hall, M.D. Physio-Medical Institute, Cincinnati, 1870, of Palatka, Fla., died in Indianapolis, March 1, aged 81.

Robert J. Wilding, M.D. Apothecaries' Hall, London, England, 1856, secretary of the Franklin County Medical Society, died suddenly at his home in Malone, N. Y., February 24, from heart disease, aged 67.

Enoch Lewis, M.D. Cleveland Medical College, 1867, died at his home in Oskaloosa, Iowa, March 2, from pneumonia, after a short illness, aged 67. He had been an invalid from paralysis for seven years.

Tobias J. Butler, M.D. Faculty of Medicine of Queen's University and Royal College of Physicians and Surgeons, Kingston, Ont., 1895, of Chicago, died in January, 1903, from tuberculosis, aged 48.

W. S. Ruby, M.D. Homeopathic Medical College of Missouri, St. Louis, 1878, while despondent from protracted ill health, shot and killed himself at his home in Riverside, Cal., February 22.

Coit H. Kendall, M.D. Bennett College of Eclectic Medicine and Surgery, Chicago, 1878, died at his home in Barrington, Ill., February 21, after an illness of two weeks, from pneumonia, aged 45.

Theophilus Smith, M.D. Jefferson Medical College, Philadelphia, postmaster of Wausau, Wis., from 1868 to 1876, died at his home in Wausau, February 27, after an illness of a week, aged 87.

Frank E. Baker, M.D. College of Physicians and Surgeons, New York, 1882, died at his home in Newark, N. J., March 1, as the result of injuries sustained in a fall, February 8, aged 47.

Theodore Young Kinne, M.D. Albany (N. Y.) Medical College, 1862, assistant surgeon of volunteers in the Civil War, died at his home in Paterson, N. J., March 4, from heart disease, aged 65.

Frank M. Severson, M.D. College of Physicians and Surgeons, New York, 1889, died at his home in Seneca Falls, N. Y., March 1, from pneumonia, after an illness of one week, aged 40.

Peter Arnold, M.D. Washington University, St. Louis, 1895, a member of the American Medical Association, died at his home in Wellsville, Mo., February 25, aged 35.

Thomas B. Cosford, M.D. Trinity Medical College, Toronto, 1876, of Lockport, N. Y., died in Redlands, Cal., from consumption, February 26, after a long illness, aged 57.

Hermann Moter, M.D. University of Giessen, Germany, 1847, who retired from active practice in 1891, died at his home in Reading, Pa., February 22, aged 83.

Charles B. Pillsbury, M.D. Hahnemann Medical College, Chicago, 1879, died at his home in Duluth, Minn., March 2, from an abscess of the throat, aged 52.

Abraham Hicks Price, M.D. University of Maryland, Baltimore, 1861, died at his home near Towson, Md., March 1, after an illness of ten years, aged 64.

Orton Woodruff Peterson, M.D. Hahnemann Medical College, Philadelphia, 1859, died at his home in Waterloo, N. Y., February 27, from heart disease.

David B. Hale, M.D. Eclectic Medical Institute, Cincinnati, 1869, died at his home in West Liberty, Ohio, February 26, from epithelioma of the face.

William C. Mills, M.D. McGill University, Montreal, 1893, died suddenly at his home in Chateaugay, N. Y., February 23, from heart disease, aged 38.

J. A. Huntsman, M.D. College of Physicians and Surgeons, Keokuk, Iowa, 1875, was found dead at his home in Austin, Nev., February 23, aged 72.

Marcus Henry Slosson, M.D., formerly dean of Pulte Medical College, Cincinnati, died at his home in that city, February 23, from heart disease, aged 85.

Garland Hurt, M.D. St. Louis Medical College, 1863, died at his home in Newport, Ark., Dec. 9, 1903, from pneumonia following influenza, aged 83.

Fred Vernette, M.D. Physio-Medical Institute, Cincinnati, 1865, died from paralysis at his home in Hannibal, Mo., after a long illness, aged 62.

McKendree F. Driscoll, M.D. Starling Medical College, Columbus, Ohio, 1876, died in Chicago from heart disease, January 17, aged 48.

Clinton Toy, M.D. Memphis (Tenn.) Hospital Medical College, 1897, died at his home in Mineral, Texas, from consumption, February 24.

O. Perry Collings, M.D. Tennessee, of Thomas, Okla., died recently in Mexico, where he had gone to spend the winter.

Job Bell, M.D., retired, formerly representative from McNairy County, Tenn., died at his home in Henderson, Tenn., February 25.

William D. McClees, M.D. University of Pennsylvania, Philadelphia, 1885, died at his home in Wichita, Kan., February 25, aged 42.

James P. Richardson, M.D. Columbian University, Washington, D. C., 1868, died at his home in San Francisco, February 9, aged 84.

George W. Gillette, M.D. Tufts College Medical School, Boston, 1902, died at his home in Dorchester, Mass., February 21, aged 25.

William G. Taylor, M.D. Hahnemann Medical College, Philadelphia, 1870, died at his home in Columbia, Pa., March 4, aged 58.

John K. Woods, M.D. Cincinnati College of Medicine and Surgery, 1865, died at his home in Van Wert, Ohio, March 3, aged 77.

Amasa Ward, M.D., died at his home in Hardwick, Vt., from paralysis, after a long period of invalidism, February 20, aged 80.

William E. Schlemm, M.D. University of Pennsylvania, Philadelphia, 1854, died at his home in Reading, Pa., February 23, aged 79.

Asa R. Silvey, M.D. St. Louis College of Physicians and Surgeons, 1890, died at his home in Murphysboro, Ill., recently, aged 47.

Charles W. Newton, M.D. Medical College of Ohio, Cincinnati, 1891, of Toledo, Ohio, died at Phoenix, Ariz., February 2, aged 36.

Anna E. Mills, M.D. Denver, 1903, died at her home in Denver, February 21, from tuberculosis of the intestines, after a long illness.

J. N. Ramsay, M.D. University of Pennsylvania, Philadelphia, 1859, died at his home in Seaboard, N. C., February 26.

David Prescott Merritt, M.D. McGill University, Montreal, 1881, died recently at his home in Elmira, N. Y., aged 63.

Samuel L. Johnson, M.D. 1888, died at his home in Pittsburg, Pa., February 21, after an illness of ten days, aged 77.

John Ashe Mayer, M.D. Atlanta (Ga.) Medical College, 1856, a retired physician of Scarboro, Ga., died February 23.

Wilson Reed, M.D. Hygeio-Therapeutic College of New York, 1861, died recently at his home in Indianapolis.

F. A. Stevens, M.D., of Berwyn, I. T., died from pneumonia at the Gainesville Sanitarium, February 26.

A. F. Pattison, M.D., died at his home in Plattsburgh, N. Y., March 3, aged 76.

Book Notices.

BIOGRAPHIC CLINICS. Volume II. The Origin of the Ill Health of George Eliot, George Henry Lewes, Wagner, Parkman, Jane Welch Carlyle, Spencer, Whittier, Margaret Fuller Ossoli and Nietzsche By George M. Gould, M.D., Editor of American Medicine. Cloth. Pp. 392. Price, $1.00. Philadelphia: P. Blakiston's Son & Co. 1904.

In a previous volume Dr. Gould attempted to convince the medical world—but, as he himself admits, with slight success—that the ill health of De Quincey, Carlyle, Darwin, Huxley and Browning was mainly due to defective eyes. In the present volume a similar line of argument is pursued, but we fear the same jury will also render a Scotch verdict in the case of the fourteen personages under discussion. Postmortem diagnosis is the most valuable of all single methods with a complete *sectio corporis* in evidence, but notoriously misleading, and, may we not add, unscientific when it is based, as in these instances, on quotations from diaries, biographical sketches, incomplete medical reports and occasional letters. It is like diagnosticating and prescribing through the medium of the postoffice or telephone; most of us shrink from it, especially when we have never seen the patient. Naturally, then, we hesitate to agree with Dr. Gould, in whose mind, nevertheless, there seems no shadow of doubt. The fourteen exhibited eyestrain, and should have been treated for it (with glasses), after which their sufferings would have disappeared like mist before the rising sun. In all candor, we believe the author would have roundly denounced any German or any Englishman who might have had the temerity and the misfortune to make such an unscientific use of his imagination.

From our reading of Dr. Gould's book we would be content to say that all of the fourteen presented some symptom or symptoms referable to the ocular apparatus, and that a moiety of them—perhaps eight—might have been helped by treatment of their eyes or they might not. We do not know what the exact defect was in any of these cases, as there was no report published of a proper examination having been made of their eyes, and we can not, therefore, speak with any authority or any real satisfaction. Not so with Dr. Gould. *Ladet Alles in ein Schiff*—they were all, he is convinced, ametropic or heterophoric, or both, and what they needed was just one oculist.

In the case of Parkman, if we were to hazard a guess, we would suggest that his ocular disease was a neurasthenic asthenopia not dependent on ametropia, and not curable by lenses alone. Of course, this guess is of little or no value, but it strikes us as being quite as free from objection as Dr. Gould's guess.

We are, however, less concerned with the assertion that certain illustrious workers in the various departments of intellectual endeavor have suffered with "eyestrain" than with the arraignment of the medical profession, the motif that runs through all the chapters of the book, for its alleged neglect of this "morbid factor" in the production of disease. The prefatory matter in Dr. Gould's book is largely composed of denunciations of his confrères for their astounding ignorance and prejudice in this regard. Evidently speaking as an *amicus curiæ* in this particular, he tells us that (page vi) "the profession must be made to realize the enormity of the mistake it has made in ignoring the truth for the past thirty years. It is more than strange that this professional crime—for such it is—should be most grievous precisely in those medical specialists from whom one would naturally expect the speediest and frankest acceptance. I allude to the neurologists and ophthalmologists. From the former class no word of consent or consideration has reached me, and from the oculists I know of but few who have assented even with qualification." The position occupied by the author in the literary world and his standing as a physician demand that we should at least examine this new doctrine and decide whether we have, unwittingly or not, been guilty of the sins laid at our professional door.

At the outset it is to be noted that several of these fourteen victims of ill health suffered from *migraine*, that this disorder was certainly the chief cause of their disability, and that Dr. Gould regards this form of "sick headache" as essentially of ocular origin. "A few drops of a mydriatic in the eyes will cure it—temporarily, of course, and non-use of the eyes will prevent it; a wrong pair of glasses will cause it and right ones will cure it. Thousands have been cured by the right ones. . . . This mystery and opprobrium of medicine can easily be cleared up whenever any 'scientist' may wish." "Each day of sixteen years and many thousands of patients have convinced me that eyestrain is the almost sole cause of the awful disease sick headache." Dr. Gould may easily understand why the enthusiasm of the neurologist and the ophthalmologist is stilled as he reads these sentences. If there is one fact that has hitherto appeared easy of demonstration in the conduct of cases of migraine it is that the ocular element in them is generally small and that the correction of the ametropia and heterophoria present exerts but a feeble influence on the attacks, and that a complete cure is the exception (perhaps not in 10 per cent. of the cases) by any form of ophthalmic therapeusis. Moreover, almost every neurophthalmologist regards the immediate eye symptoms—phosphenes, scintillating or fortification-scotomata cloudiness of vision, hemiopia, aching of the eyes, etc., as only incidentally related to the visual apparatus.

The distinguished author would also have us believe that quite a respectable percentage of the "night terrors," "bad dreams," and restless sleeping in children are due to eyestrain, and that serious and repeated subconjunctival hemorrhages, biliousness, indigestion, nervousness, insomnia, constipation, irritability and other disorders have been directly induced by the ametropic eyes of the adult, but he refrains from telling us what proportion of these troublesome symptoms are of ocular origin. In his opinion, also, cancer, rheumatism, influenza, coryza, partial paralyses of the hands and arms, erysipelas, pneumonia, tuberculosis and even suicide may result, at least indirectly, from the disturbing influences of this morbific agent. If his contentions are well grounded, we readily admit that Dr. Gould has reason to sound as loudly as possible the eyestrain tocsin if his brethren in the light are to be sufficiently aroused against this hydra-headed monster!

The author, while giving a foremost place to eyestrain in the causation of these symptoms, has little or nothing to say about the production of asthenopia by extraocular agents. Surely the organ of sight is sometimes functionally disturbed by, for example, metabolic disorders, nervous diseases and affections of the neighboring cavities. Are we not to be on the lookout lest we prescribe glasses or oculomuscular gymnastics for the relief of eye symptoms that flow from vices of the digestive, nervous or upper respiratory tract? What about the various infections of the lids and globe, the hyperemia, the chronic conjunctivitis, the blepharitis and the other infections of the anterior segment of the globe? Do they not produce much discomfort when the eye attempts to functionate, and are they not worthy of consideration?

The assumption that the evil results of eyestrain are not well understood by the profession is, in our opinion, entirely unwarranted. Why should we be accused of shutting our eyes to the iteration and reiteration of the main facts of ametropic and heterophoric viciousness that diligent and energetic ophthalmologists have paraded before graduates and undergraduates for the past twenty years, not only in this country, but (Dr. Gould to the contrary notwithstanding) in England and the Continent also? Innumerable articles in medical journals, papers before medical societies uncountable, reprints sent broadcast by the thousand, chapters in all the text-books—what more can Dr. Gould ask? Without prolonging this argument unduly, let us quote from a very elementary text-book for students—the nearest to hand. The statement first made is that the *commonest* symptoms induced by ametropic eyes in their attempts to see normally are "headaches, ocular pains and a sense of fatigue." The manual then adds, as less frequent sequels, "frontal or occipital 'neuralgia,' vertigo, insomnia, nervousness, spots or specks in front of the eyes (muscæ), car sickness, nausea, burning in the eyes or lids, smarting, 'drawing' and foreign body sensations, lachrymation and 'hot eye,' not to mention actual organic alterations in the ocular tissues (ametropic choroiditis, cataract, granular lids, conjunctival hyperemia, styes and blepharitis), due to the chronic vascular changes set up by long-continued efforts on the part of the muscular apparatus to bring about normal vision. *Occasionally* this constant irritation of the central system is responsible for attacks of chorea, epilepsy, migraine, neurasthenia, 'nervous' indigestion, 'biliousness,' and other disorders of the sympathetic system—symptoms that disappear when proper glasses are worn." If we add the blurring of print and mixing of letters and lines in reading, it seems a fair statement of the truth about the matter—doctrine that has been steadily, persistently and uniformly preached in medical journals any day these twenty years. To this array we do not believe that Dr. Gould has added anything new.

There are few propositions in the appended sixty-eight reasons "why glasses did not fit" that most ophthalmologists are not perfectly familiar with, or that they will call in question, except, perhaps, a few statements like this: "No optician ever prescribed a scientifically correct pair of lenses." We are no more in favor of the "oculist-optician" than we are of the druggist who prescribes over the counter, yet we would hesitate to make the assertion that neither had *ever* guessed correctly—because it would not be true.

Again, in his comments on "reasons" 5 to 14, and elsewhere, Dr. Gould insinuates that competent, alert and well-trained ophthalmic surgeons are so rare and the accurate determination of the refractive condition of patients so unusual that a long-suffering public must continue to suffer until his particular methods are more widely adopted. In our slight experience, we have come to a different conclusion, and we shall believe that the average American ophthalmologist is as painstaking, as judicious, as experienced and as successful in his dealings with ametropic and heterophoric patients as are the practitioners of any other branch of medicine.

One more word relative to the comment on "reason number 9." The author says: "The work [of the refractionist] demands too severe and continuous absorption of energy to permit of other interests. Science is too extensive in any one branch, and especially in this one, for the 'universal specialist.' Mastery is not attainable in more than one department. Good refraction prevents the ocular surgical diseases, and it will largely do away with the ophthalmic surgeon." If Dr. Gould had not, under "reason 1," already told us that "the 'eyestrain crank' of to-day not only does not ride his hobby hard, but does not ride it nearly hard enough," we would have reminded him that the chief danger to the specialist is the narrowing effect of his specialty. He is prone to think that *his* microcosmos rounds the whole world of medical science, and he is apt, if all his interest lies in one little corner of that world, to believe it to be the pivot on which the whole universe swings. Already the profession, as well as the laity, are beginning to look askance at the wonderful claims of some pent-up specialties. Let us expand and not contract.

Although the truth, as we see it, does not permit us to agree with Dr. Gould's estimate of the enormous evils of eyestrain, we most willingly and cordially pay him tribute justly his due for the amazing industry he has displayed in gathering the materials for "Biographic Clinics," and for the adroit use of a most eloquent pen. The personal history of his fourteen patients furnishes exceedingly interesting reading. We trust that if there is to be a third volume he will give us more biography and less eyestrain.

FUNCTIONAL DIAGNOSIS OF KIDNEY DISEASE. With Especial Reference to Renal Surgery. Clinical [illegible] Investigations. By Dr. Leopold Casper (Privatdocent [illegible] and Dr. Paul Friedrich Richter (Assistant der [illegible] Berlin). Translated by Dr. Robert C. Bryan, Adjunct Professor Genito-Urinary Diseases. University Medical College, Richmond, Va., and Dr. Henry L. Sanford, Resident Surgeon Lakeside Hospital, Cleveland. Cloth. Pp. 233. Price, $1.50 net. Philadelphia: P. Blakiston's Son & Co. 1903.

This is an excellent little work on the newer methods of determining the functional activity of the kidneys. In all diseases of the kidneys affecting one or both organs, in which surgical methods are under discussion, the necessity of examining the urines obtained directly from each kidney separately is very forcibly and properly emphasized. The attempt, however, to show that no methods of examining the urine are of any value save cryoscopy, and the quantitative estimation of sugar eliminated during a phloridzin-glycosuria, is anything but convincing. That both of the methods mentioned are of great value is true, but that they are the only methods of any value is just as certainly not true, and this can easily be demonstrated by an analysis of the very cases reported to show the contrary. The translators have followed the text closely, at times even to the extent of awkwardness of expression. The work is of great value to all who are doing advanced kidney surgery.

Miscellany.

Objectionable Advertisements in the Lay Press.—A few clear-headed and high-minded managing editors in eastern cities have taken the step of excluding objectionable advertisements, but the example has not seemed to be pleasing to the great majority of their fellows. In justice it must be said, however, that many of the sinners are such through sheer, though inexcusable, ignorance. No one about a newspaper office knows anything about medical matters, and the harm done by such advertisements is not realized.—*Cleveland Medical Journal.* Here is more work for the public press committee of the county medical society.

The Pure Food Bill.

This bill, which is now before the senate, and which has passed the house, provides for the change of the Bureau of Chemistry in the Department of Agriculture into the Bureau of Chemistry and Foods, and its enlargement to meet the needs of the law as hereby enacted. It provides that the shipment or introduction of any article of food or drugs which is adulterated or misbranded into any state or territory from another or from any foreign country is to be prohibited. If anyone shall sell or offer for sale such product he shall be guilty of a misdemeanor and fined not exceeding $200 for the first offense, and not exceeding $300 for every subsequent one or be imprisoned not exceeding one year, or both, at the discretion of the court.

No article shall be considered adulterated or misbranded when packed or prepared for export to any foreign country according to the directions of the foreign purchaser when such packing or preparation is not in conflict with the laws of the foreign country to which it is shipped, but if it is sold or offered for sale for domestic use or consumption it shall not be exempt from the operation of all the other provisions of the act.

The director of the Bureau of Chemistry and Foods shall make such examination as may be required of the specimens of foods and drugs under the regulation of the Commissioner of Agriculture, and it shall be the duty of every district attorney to whom the Secretary of Agriculture shall report any violation of this act to cause proceedings to be commenced and prosecuted without delay for the fines and penalties provided.

Definitions of adulterations, misbranded and of the terms drugs and foods are given in detail. The exceptions are that an article of food which does not contain any added poisonous or deleterious ingredients shall not be deemed to be adulterated in the case of mixtures or compounds now or from time to time hereafter known as articles of food under their own distinctive names and not specially included under definition 4 of this section; that is, if it be not an imitation of or offered for sale under the distinctive name of another article. 2. In case of articles labeled, branded, or tagged so as to plainly indicate that they are mixtures, compounds, combinations, imitations or blends provided the labels show the character and constituents thereof, and nothing shall be construed as requiring proprietors or manufacturers of proprietary foods which contain no unwholesome ingredient to disclose their trade formulas except in so far as it may be necessary to secure freedom from adulteration or imitation, and provided further that no dealer should be convicted under the provisions of this act when he is able to prove a written guarantee of purity, in a form approved by the Secretary of Agriculture, signed by the manufacturer or party or parties from whom he purchased such article; provided also that said guarantor or guarantors reside in the United States. Such guaranty shall contain the full name and address of the party or parties making the sale, and they shall be amenable to the prosecutions, fines and other penalties which would attach in due course to the dealer under the provisions of this act. When in the preparation of food products for shipment they are preserved by an external application applied in such a way that it is necessarily removed before use, the provisions of this act shall be construed as applying only when such products are ready for consumption. The Secretary of Agriculture is directed to fix the standard of food products when advisable, and every manufacturer or seller must be able to furnish within business hours and on tender and full payment of the selling price a sample of such drugs or article of food to any person duly authorized by the Secretary of Agriculture to receive the same. Any manufacturer, producer or dealer who refuses to do this shall be guilty of a misdemeanor, and on conviction shall be fined not exceeding $100, or be subject to imprisonment not exceeding 100 days, or both. Any one convicted is also liable to have to pay the costs and expenses of analysis, etc., beside the penalty imposed.

This act does not interfere with commerce wholly internal in any state nor with the exercise of police powers of any state, but foods and drugs fully complying with all the provisions of the act shall not be interfered with by the authorities of the several states when transferred from one state to another as long as they remain in the original unbroken package, except as may be otherwise provided by the statutes of the United States. Proceedings in case of any violation can be held in any district court in the United States. The proceedings in such a libel case shall conform as near as may be to the proceedings in admiralty except that either party may demand trial by jury in any issue of fact and all such proceedings shall be at the suit of and in the name of the United States. The Secretary of Agriculture is authorized to investigate the character and extent of the adulteration of foods, drugs and liquors whenever he has reason to believe that articles are being imported from foreign countries which by reason of such adulteration are dangerous to the health of the people of the United States, or of kinds which are forbidden entry into or forbidden to be sold or restricted in sale in the countries in which they are made or from which they are exported or which shall be falsely labeled in any respect. The Secretary of the Treasury is authorized to open such original packages and deliver specimens to the Secretary of Agriculture for the purpose of examination, giving due notice to the owner or consignee of such articles, who may be present and have the right to introduce testimony. The Secretary of the Treasury shall refuse delivery to the consignee of any such goods which the Secretary of Agriculture reports to him have been inspected and analyzed and found to be dangerous to health, or of kinds which are forbidden entry into or forbidden to be sold or restricted in sale in the countries in which they are made or from which they are exported or which shall be falsely labeled in any respect either by omission of the name of any added ingredient or otherwise or in regard to the place of manufacture or the contents of the package. This act is to be in force from Sept. 1, 1904.

The Loss of Life in 1903.

Statistics gathered during the year 1903 show that the loss of life in the United States from various violent causes was as follows:

RAILROAD DISASTERS.

The loss of life by railroad accidents during 1903 was 4,090, as compared with 3,165 in 1902, 3,699 in 1901, and 1,409 in 1900. In addition to the loss of life on the steam roads 573 have been killed on electric roads.

MARINE DISASTERS.

In wrecks at sea and on inland rivers and lakes, the total loss of life was 1,935, as compared with 4,200 in 1902, and 2,255 in 1901.

OTHER ACCIDENTS.

The following table gives the loss of life resulting from other disasters of various kinds:

Fires	1,792	Electricity	156
Drowning	2,471	Mines	788
Explosions	736	Cyclones, storms	487
Falling buildings, etc.	474	Lightning	139

Some disasters which caused the largest loss of life were: Cyclones and rock slides in April, 127 persons; cyclones and the Missouri River floods in May, 266; a cyclone at Gainsville, Ga., in June, 80; a South Carolina flood in June, 58; a cloud-burst in Arizona in June, 31; a cloud-burst in Heppner, Oregon, in June, 200; and finally December 30 about 576 lives were lost in the burning of the Iroquois Theater, Chicago.

MURDERS.

During the year there were 8,976 crimes resulting in death by various forms of violence. In 1902 there were 8,834, and in 1901, 7,852. The number killed by burglars, thieves, etc., was 406, while in 1902 it was 333, and in 1901, 193. During 1903 only 53 highwaymen were killed. The causes of these crimes were as follows:

Quarrels	4,952	Resisting arrest	78
Unknown	2,451	Highwaymen killed	53
Liquor	302	Riots	38
Jealousy	228	Self defense	21
By highwaymen	406	Strikes	35
Insanity	140	Outrages	12
Infanticide	254		

In contrast to the 8,976 cases of murder and homicide are the few legal executions, which numbered 123. In 1902 there were 144, in 1901, 118, and in 1900, 119. In Alabama, Missouri and New York there were 11 executions each, in Virginia 10, in Georgia 9, in Mississippi and Pennsylvania 8, and lesser numbers in other states.

LYNCHINGS.

In 1903, 104 persons were lynched, while in 1902 there were 96, in 1901, 135; in 1900, 115, etc. The number has gradually decreased, in 1885 lynchings numbered 184; in 1892, 235. In 1903 18 persons were lynched in Mississippi, 14 in Louisiana, 13 in Arkansas, 12 in Georgia, etc. Illinois and Montana each had 3, the largest number of any northern state. Of the total number of lynchings 12 occurred in the north and 92 in the south, 86 were negroes, 17 were white persons, and 1 a Chinaman; 2 were women. The alleged crimes were as follows:

Murder, 47; criminal assault, 11; attempted criminal assault, 10; murderous assault, 7; unknown offenses, 5; race prejudice, 5; complicity in murder, 5; arson, 4; suspicion of murder, 3; mistaken identity, 3; insults to whites, 2; making threats, 1; refusing to give information, 1.

SUICIDE.

Suicides during 1903 numbered 8,597, as compared with 8,291 in 1902, 7,245 in 1901, 6,755 in 1900, and 5,340 in 1899. Carbolic acid was the most common poison used and poisoning the most common method. This calls attention to the ease with which carbolic acid may be procured and gives emphasis to the agitation for the lessening of this possibility. Altogether 4,050 persons took poison, 3,627 killed themselves by shooting, 370 by hanging, 185 by railroad trains, 54 by jumping from windows and roofs, 15 by fire, 18 by stabbing, 7 by dynamite and 4 by starving. Of the 8,597 cases of suicide in 1903, 5,385 were men and 3,212 women. Among professional men, physicians headed the list, numbering 35, ministers 5, lawyers 4, artists 4, college professors 2, bank officials 12. The causes of suicide were as follows:

Despondency	4,561	Domestic infelicity	628
Unknown	1,454	Liquor	519
Insanity	401	Disappointed love	299
Ill health	384	Business losses	351

These facts concerning the violent causes of death are full of meaning, but the deductions to be made are not essentially different from those of previous years. The physician would be glad to see statistics of epidemics of disease, but these are stated to be not ascertainable with exactness. The above statistics are gathered from various sources. We add the statistics we gathered and published (The Journal, Aug. 29, 1903) of the number killed in Fourth of July casualties: By tetanus, 406; by other injuries, 60; total, 466.

State Boards of Registration.

COMING EXAMINATIONS.

Maine Board of Registration of Medicine, Portland, March 23. Secretary, A. K. P. Meserve, M.D., Portland.

Regular Board of Medical Examiners for Georgia, Atlanta, March 30. Secretary, I. H. Goss, M.D., Athens.

Arizona Board of Medical Examiners, Phoenix, April 4. Secretary, Wm. Duffield, M.D., Phoenix.

Utah State Board of Medical Examiners, Salt Lake City, April 4. Secretary, R. W. Fisher, M.D., Salt Lake City.

Board of Medical Examiners of Montana, Helena, April 5. Secretary, Wm. C. Riddell, M.D., Helena.

North Dakota State Board of Medical Examiners, Grand Forks, April 5. Secretary, H. M. Wheeler, M.D., Grand Forks.

Board of Medical Examiners of the State of California, City Hall, San Francisco, April 5. Secretary, Geo. G. Gere, San Francisco.

Idaho State Board of Medical Examiners, Boise, April 6. Secretary, R. L. Nourse, M.D., Hailey.

Minnesota State Board of Medical Examiners, State Capitol Building, St. Paul, April 5-7. Secretary, C. J. Ringnell, M.D., Minneapolis.

Illinois State Board of Health, Chicago, April 6-8; April 25-27, and East St. Louis, May 4-6. Secretary, J. A. Egan, Springfield.

Rhode Island State Board of Health, State House, Providence, April 7-8. Secretary, Gardner T. Swarts, M.D., Providence.

State Medical Board of the Arkansas Medical Society, Little Rock, April 12. Secretary, J. P. Runyan, M.D., Little Rock.

Missouri State Board of Health, Kansas City, April 12-14. Secretary, W. F. Morrow, M.D., Kansas City.

West Virginia State Board of Health, Clarksburg, April 12-14. Secretary, Hugh A. Barbee, M.D., Point Pleasant.

Vermont State Board of Medical Censors, Y. M. C. A. Building, Rutland, April 13-14. Secretary, S. W. Hammond, M.D., Rutland.

Board of Medical Supervisors of the District of Columbia, Washington, April 14. Secretary, Wm. C. Woodward, M.D.

Board of Medical Examiners for the State of Texas, Austin, April 21-23. Secretary, M. M. Smith, M.D., Austin.

Iowa January Report.—Dr. J. F. Kennedy, secretary of the Iowa State Board of Medical Examiners, reports the written examination, held at Des Moines, Jan. 26 and 27, 1904, as follows: Subjects, 8; questions, 80; percentage required, 75; applicants, 20; passed, 12; failed, 8.

PASSED.

College.	Year Grad.	Per Cent.
Western Reserve University, Ohio	(1885)	81
Rush Med. Coll., Chicago. (1900) 80, (1901) 87, (1902) 86, 86, (1903) 86, 82.		
University of Michigan	(1902)	92
St. Louis Medical College	(1899)	84
St. Louis College P. and S.	(1903)	77
College P. and S., Chicago	(1903)	87
University of Christiania, Norway	(1898)	84

FAILED.

College.	Year Grad.	Per Cent.
St. Louis College P. and S.	(1901)	74†
Ainsworth Med. Coll., St. Joe	(1903)	61
Marion-Sims Med. Coll., St. Louis	(1898)	71
University of Nebraska, Omaha	(1903)	74
Barnes Medical College, St. Louis	(1900)	66
University Medical College, Kansas City	(1902)	66*
Eclectic Medical Institute, Cincinnati	(1903)	66†
Chicago Hom. Med. Coll	(1903)	60*

* Second examination; † third examination.

Wisconsin January Report.—Dr. Filip A. Forsbeck, secretary of the Wisconsin Board of Medical Examiners, reports that at the written examination at Milwaukee, January 12, at which 120 questions were asked on 18 subjects, and a percentage of 75 was required, 7 applicants appeared, 5 passing, 1 failing, and 1 being conditioned. There were also 3 osteopaths, 2 failing, and one being conditioned.

PASSED.

College.	Year Grad.	Per Cent.
Northwestern University (1902) 80.3,	(1899)	87.5
Keokuk (Iowa) Medical College	(1903)	80.3
Rush Medical College, Chicago	(1902)	83.4
McGill University	(1891)	87.4

CONDITIONED.

College.	Year Grad.	Per Cent.
University Medical College	(1901)	76.0

FAILED.

College.	Year Grad.	Per Cent.
Harvey Medical College, Chicago	(1899)	70.4

Association News.

WORK OF MEDICAL LEGISLATION COMMITTEE.

The Panama Canal Commission and the Medical Profession.

Many of our readers are aware of the work done by the Committee on Medical Legislation of the American Medical Association to secure the appointment of a medical member on the Panama Canal Commission. The committee sent out a "referendum," February 24, but, as it developed later, too late to be of service. The committee, March 4, sent out a circular letter referring to the matter, which is as follows:

COMMITTEE ON MEDICAL LEGISLATION.

Office of the Chairman: Cincinnati, March 3, 1904.

To the National Auxiliary Congressional and Legislative Committee:—The Committee on Legislation begs leave to report, relative to General Referendum No. 1, that at the time of the meeting of the National Legislative Council at Washington, information was received that appointments on the Panama Canal Commission would not, in any probability, be closed until after March 1. The President was accordingly addressed and a referendum issued February 24. The appointments were, however, promulgated the next morning—too soon for the referendum to have become effective, even if the appointments had not been previously agreed on. That the latter was, however, the case is shown by the letter of the President, as follows:

White House, Washington, Feb. 27, 1904.

Dr. Charles A. L. Reed, American Medical Association, Cincinnati:

The President directs me to state that before receiving your letter of the 24th the commission had been made up. The President had already given the fullest and most careful consideration to the proposal to put a medical member on the commission, and would have been delighted to have met a delegation from your body if the application had been made in time, exactly as he did meet Dr. Osler, Dr. Welch and others, who came before him on this same subject. Of course it was not possible for him to make arrangements to meet such a delegation after the commission had actually been appointed The President assures you that he is in hearty sympathy with the purposes of your Association, and believes that the commission as appointed will conduct its business in a way which will satisfy the medical experts of this country.

Very truly yours, (Signed) WM LOEB,
Secretary to the President

The foregoing letter, so far as the attitude of the President is concerned, must be accepted as entirely satisfactory. The fact remains, however, that the Panama Canal Commission, in its composition, violates the principle that the medical profession must recognize as vital to its own proper status in the community, viz.: Just representation on any and every commission of mixed membership dealing in a large way with the application of medical science to the general welfare. The present circumstance, however, is to be charged to the congress which, by the terms of the law, left but a single appointment in the seven to the entire discretion of the President. It has been deemed best to recognize the situation simply as another example of the forgetfulness of legislative bodies relative to the civic relations and political importance of the medical profession, and to await the organization of the commission and the promulgation of rules governing medical and sanitary administration, before determining whether or not an amendment to the law, making a commission of nine instead of seven members, two of them physicians, ought to be made the subject of a referendum . . .

CHARLES A L REED, Chairman

Philadelphia Clinics in June.

The medical colleges and hospitals of Philadelphia are preparing a series of clinics and demonstrations complimentary to the members of the American Medical Association. These clinics will be given the week preceding and the week following the Atlantic City session.

New Members.

New members for the month of February, 1904:

ALABAMA

Fore Rufus B, Horse Creek
Thompson H W., Plantersville
Baldwin, Jas C, James
Johnston, F. M., Tuskegee

ARIZONA

Thayer, L H, Buckeye
Cooper, A Nassau, Bisbee

ARKANSAS

Blackwood, J C, Mt Judea
McClendon A A, Marianna
McClendon, J W, Hot Springs
Newton, W. L, Oualaska

CALIFORNIA

Gray, Frank P, San Francisco
Himmelsbach, Wm, San Francisco
Ryer, M. B, San Francisco
Vecki V G San Francisco
Reinhardt, G F, Berkeley
Teass, Chester J, Winthrop
Miller, Chas F Gardena
Janes, John E, Pasadena
Holden, Jos M, Long Beach
Wallace, R F, Redding.
Rankin, John T, Los Angeles

COLORADO.

Scully, D J, Colorado Springs
Cooper, J E, Boulder
Taylor, A. G, Grand Junction.

CONNECTICUT

Lawton, F L, Hartford
Fitzgerald Wm H, Hartford
Bell, Geo N, Hartford
Allen, L M, So Norwich
de Lisser, G M, Bridgeport.
Simpson, F. T, Hartford

DISTRICT OF COLUMBIA

Abbe, Freeman, Washington

FLORIDA.

Mitchell, Wallace, Jacksonville.
Ives A Cronin, Lake City.
McKinstry, Jr, Jas F, Gainesville

ILLINOIS.

Storey, C. A., Chicago.
Almes, H. E, Chicago
Hook, Elisha L., Chicago
Schmauch, Georg. Chicago
Maginn, E F., Chicago
Knight E C, Chicago
Durham, O B Chicago
Moldenhauer G H, Chicago
Blanchard, Wallace Chicago
Bergener Gustav J, Chicago
Meyer, R C J, Moline
Ryerson C D, West York
Seigfreid H D, Denver
Nelson G T, Morris

INDIANA

Smith, S E Richmond
Van Buskirk E M Ft Wayne
Weist, H H, Richmond
Herr, Henry, Washington
Mitchell, J M Lafayette

IOWA

Graham, D Y, Morning Sun
Hunter, Fred Emmettsburg
Wilson, Frank R, New London
Newell W C Ottumwa
Sloat Wm E, Denmark
Turner L C S, Colfax

KANSAS

Wehe, W A, Topeka

KENTUCKY

Wolfe, D H H Louisville
Owens James H, Wisdom
Chatten Edw A, Earlington
Crume S B, Bloomfield
Venable, C L, Prices Mill
Heavrin J P Owensboro
Crockett, E K, Wilmore
Wise, W P, Frozen Creek
Carpenter, B R, Hustonville
Bailey, Sanford, Valley View

LOUISIANA

Tircuit, P. C Outre
Kemp, Robt. C, Echo
Rogers, Fulton, Napoleonville
Himel A J Napoleonville
Regard, Emil, Mansura

MARYLAND

Dobbin, Geo W., Baltimore
Schild, Edw. H, Baltimore
Hoffmann, Robt, Baltimore

MASSACHUSETTS

Holmes, Edgar M, Boston
Smith Mary A., Boston.
Canedy, C F., Greenfield
Clarke, I J, Haverhill
Bates Chas, So Royalston
Thorning, W. Burton, Winchester.
Parmelee, Wm J, Worthington.
Lindquist, C. A, Everett.
Young, E W., Everett
Sumner, H H, Lowell
Morris, R H., Everett.
Robinson, Francis A, Pittsfield
Wheeler, E R., Spencer.
Eastman, Alex C., So. Framingham
Lynch, P. M, Springfield.
Chapin, Delia L, Springfield
Holton C. E, Bernardston
Macleod, Arthur, Gloucester.
Merritt, V. S, Haydenville
McPherson W. D, Somerville

MICHIGAN.

Morse, R L, Ann Arbor
Willis, E A, Ann Arbor
Otis E F, Battle Creek
Buckley, Thos M., Battle Creek
Townsend, I S, Detroit
McKean, G E, Detroit
Williams Norris A. Bangor
Steinbach, R H, Richville
Carter, J. R. C Rudyard
Darling Abner M Crystal Falls
Wall W Joselyn, Elba
Ketcham, Wm J, Dowagiac
Long Harry W Escanaba
Shaver, Harry E, Boyne City

MINNESOTA

Nelson, C P, Westbrook
Quitmeyer, O C, Parkers Prairie

MISSISSIPPI

Crawford, Wm S, Laurel
Elmore R C Durant.
McCormick, H G, Jones City

MISSOURI

Brown John Y, St Louis
Baines Jr, A S St Louis
Henry Fannie J, Kansas City
Welch John Albert Farber
Spriggs M Luther, Joplin

NEBRASKA

Waite Jos J, Sargent
Hildebrand G H, Clearwater.
Waite H H, Lincoln
Robinson, O E, Danbury

NEW HAMPSHIRE

Stewartson, Charlotte D Manchester
Davenport, G E, Lisbon

NEW JERSEY

Norton, H G Trenton
Elwell Alf M Camden
Neal C B, Millville
Proctor Jas W Englewood
Pratt Wm Henry, Camden
Priestley Sophie Camden

NEW YORK

Robertson, Jos A, New York City
Witmer A F, New York City
Goodridge E A, Flushing
Sitler W R Suffern
Goodwin P S Perry
Torrey, Edw Allegany
Flagg, J D Buffalo
Allan, C F, Newburgh

NORTH CAROLINA

Archey L M, Concord
Councill, J. B, Salisbury
Hill, D J, Lexington
Stanton, D A, High Point
Fowlkes, J I Hamlet
Pressly, C Wm Charlotte

OHIO

Rankin, Jr, G T Akron
Baron, F S, Zanesville
Cragg, H C, Cincinnati
Muhlberg Wm Cincinnati
Ormsby H B, Cleveland
Jones N M, Cleveland
Stern, W G, Cleveland
Calhoun, F. P, Canton
Folk, Peter Beavertown
Edwards, Edw. Delphos
Shaw, A. C, Eaton

OKLAHOMA

Scott J H, Shawnee
Koons R F, El Reno.
McCray, Oran D, Binger

OREGON

Brock, L J, Sumpter.
Kinney, Alf, *Astoria*

PENNSYLVANIA

Boyce, D C, Allegheny
LeBoutillier, Theo, Philadelphia
Corson Geo R. S, Philadelphia
Baldwin, J. H., Philadelphia.
Karpeles, M J, Philadelphia
Smith, Caroline E, Philadelphia.
Fetterolf, George, Philadelphia
Moylan, John J., Philadelphia
Illman, G. M, Philadelphia.
Landis, H. R. M., Philadelphia
Yeager, G. C., Philadelphia.
Parish, B. D, Philadelphia
Ward, N. G., Philadelphia
Stern, Max J, Philadelphia
Irwin J. A Philadelphia
Stewart John, Philadelphia
Shelmerdine, E K Philadelphia
Robertson, J. F, Philadelphia
Hulsizer, G. R, Philadelphia
Godfrey H. B, Philadelphia
Drein, Wm C., Philadelphia
Allyn, Herman B, Philadelphia
Crulce, John M, Philadelphia.
Bryan, Henry N, Philadelphia
Berlet, Jas F, *Philadelphia*
McCamy, Robt H, Philadelphia
Thrush, Morris Clayton, Philadelphia.
Jones, Thos E, Philadelphia
Skillern Samuel R, Philadelphia
Harbridge, D T, Philadelphia
Auspach, B M, Philadelphia
Murdoch, J Floyd, Pittsburg
Matheny, Albert R, Pittsburg
Weiss, E A, Pittsburg
Anderson, G R, Barnesboro
Knedler, J W., Scranton
Kauffman, John W., Reading
Irvine, Geo R., Clearfield
Hunter, M C Sayre.
Hay, George, Johnstown.
Hurd, M E, La Jose
Heinen, Gustaf F, Ralston
French, Edward E, Ellsworth
Wilson, J D M, Washington
Veatch, N S, California

RHODE ISLAND

Hoye Henry Jos, Providence
Burdick, Frank E Providence
Best, O. Fletcher, Providence

SOUTH CAROLINA.

Wilson, G. D F, Spartansburg

SOUTH DAKOTA

White, J W C., Plankinton

TENNESSEE

Ware, W W, Covington
King Walter P, Lutts.
Brinkley, G T, Fayette Corners
Allen, A M, Buford
Brown, Horatio H, Sharon
Blackburn, Jas Knox, Lynnville
Fittsworth, B M, Dandridge R F D, No 3
White, C A, Memphis
Thompson, Sidney, Humboldt

TEXAS

Brown, B F, Crockett
Ragland, T S, Gilmer
Hunter, J R, Hornsby.
Speer, J. A, Itaska
Alexander, Edw, El Paso
Guinn, E E, Jacksonville

UTAH

Taylor, Fred W, Provo
Gibson T C, Salt Lake City
Holmquist, A. J, Helper.

VERMONT

Hanson, H B, Hinesburg
Ross L H, Bennington
Hack, T H, Proctor

VIRGINIA

Hurt, A J, Ballsville
Webb F B, Roanoke.
McCabe, W O, Thaxton

WASHINGTON

Banks, Rush, Centralia
Marsh Marlette, Seattle

WEST VIRGINIA

Lind G D, New Richmond
Stone, T M, Pine Grove
Patton, H W, Decatur
Bush, Allen, Morgantown.

WISCONSIN.

Lester, Wm A, Onalaska
Lester, H S, Union Grove
Spitz, M M, Milwaukee.
Phillips, T C, Milwaukee
Pullen, A. J., N. Fond du Lac
MacGregor, S A, *Nekoosa*

WYOMING

Denison, E G, Spring Valley

PHILIPPINE ISLANDS

Musgrave, Wm. E, Manila

The Public Service.

Army Changes.

Memorandum of changes of station and duties of medical officers, U. S. Army, for the week ending March 5, 1904:

Moseley, E. B., deputy surgeon general, granted thirty days' leave about March 1, with permission to apply for an extension of three months and to go beyond the sea.

Patton, I. W., asst.-surgeon, extension of leave revoked.

Bourke, James, asst.-surgeon, relieved from temporary duty as attending surgeon and examiner of recruits, Chicago, and ordered to Fort Sheridan, Ill., for duty.

La Garde, Louis A., surgeon, relieved from duty in Washington, D. C., and ordered to the Philippine Division for duty.

Harvey, Philip F., asst.-surgeon general, left Chicago on thirty days' leave, with permission to apply for thirty days' extension.

Chambers, William H., contract dental surgeon, reported February 19 at Atlanta, Ga., for duty in the Department of the Gulf. He was assigned to station at Fort McPherson, Ga., but February 24 went to Camp George H. Thomas, Ga., for a temporary tour of duty.

Sorber, Ord M., contract dental surgeon, having completed his temporary duty at Fort Bliss, Texas, reported February 25 at Fort Clark, Texas, for temporary duty.

Mills, Frederick H., Patterson, Edwin W., Springwater, Samuel A., Burkart, John L., MacDonald, Charles E., Miller, William G., Newton, Ralph W., and Graves, Leonard K., contract surgeons, sailed on the *Sherman* March 1 for service in the Philippine Division.

Mabry, William C., contract surgeon, granted leave of absence for ten days from Columbus Barracks, Ohio.

Ferguson, James B., contract surgeon, left Boise Barracks, Idaho, February 27 for San Francisco, to assume duty as transport surgeon of the *Dix*.

Stoney, Randell C., contract surgeon, relieved from further duty at Fort Screven, Ga., and assigned to permanent station at Fort Hamilton, N. Y., where he has been on temporary duty for some time.

Navy Changes.

Changes in the medical corps of the Navy, week ending March 5, 1904:

Spratling, L. W., surgeon, ordered to report for special temporary duty in the Bureau of Medicine and Surgery, Navy Department.

DeVries, J. C., A. A. surgeon, detached from duty with recruiting party No. 2 and ordered to Recruiting Station, Baltimore.

Janney, W. H., A. A. surgeon, detached from the Naval Recruiting Station, Baltimore, and ordered to duty with recruiting party No. 2.

Taylor, J. S., P. A. surgeon, detached from the Naval Hospital, New York, and ordered to accompany a marine battalion to San Francisco, and thence to the U. S. S. *Relief*.

McCullough, F. E., P. A. surgeon, ordered to the Asiatic station, sailing about March 9.

Strine, H. F., asst.-surgeon, detached from the Naval Station, Olongapo, P. I., and ordered to the *Annapolis*.

Murphy, J. F., asst-surgeon, detached from the *Wisconsin* and ordered to the *Isla de Cuba*.

Health Reports.

The following cases of smallpox, yellow fever, cholera and plague have been reported to the Surgeon General, Public Health and Marine-Hospital Service, during the period from February 26 to March 5, 1904:

SMALLPOX—UNITED STATES.

Arkansas: Fort Smith, Feb. 13-20, 5 cases.
California: San Francisco, Feb. 14-21, 9 cases.
Colorado: Denver, Dec. 26-Jan. 30, 18 cases.
Delaware: Wilmington, Feb. 20-27, 1 death.
District of Columbia: Washington, Dec. 20-27, 7 cases.
Florida: Jacksonville, Feb. 20-27, 1 case.
Illinois: Belleville, Feb. 6-27, 7 cases; Feb. 20-27, Chicago, 2 cases; Danville, 1 case.
Maryland: Baltimore, Feb. 20-27, 2 cases.
Michigan: Detroit, Feb. 20-27, 1 case; 83 localities, Feb. 13-20, present.
Missouri: St. Louis, Feb. 20-27, 9 cases, 1 death.
New Hampshire: Manchester, Feb. 20-27, 3 cases.
New Jersey: Trenton, Feb. 20-27, 3 deaths.
New York: Buffalo, Feb. 20-27, 1 case.
Ohio: Bucyrus, Feb. 20-27, 3 cases; Cincinnati, Feb. 12-26, 9 cases, 1 death; Cleveland, 20-26, 1 case; Toledo, Feb. 20-27, 1 case.
Pennsylvania: Feb. 20-27, Allentown, 1 case; Johnstown, 2 cases; Philadelphia, 26 cases, 12 deaths; Pittsburg, 2 cases imported; Williamsport, Feb. 13-27, 7 cases, 2 deaths.
South Car[illegible] Feb. 20-27, 6 cases, 1 death.
Tennessee [illegible] 35 cases; Nashville, 15 cases.
Virginia: [illegible] 7 cases.
Wisconsin: Milwaukee, Feb. 20-27, 4 cases.

SMALLPOX—FOREIGN.

Africa: Dec. 1-31, Cape Town, 1 case; Green and Sea Point, 1 case.
Austria: Prague, Jan. 30-Feb. 13, 11 cases.
Belgium: Jan. 30-Feb. 13, Antwerp, 9 cases, 2 deaths; Brussels, 2 deaths.
Brazil: Rio de Janeiro, Jan. 24-31, 29 cases, 19 deaths.
Canada: Quebec, Feb. 13-27, 6 cases.
China: Jan. 9-16, Hongkong, 2 cases; Shanghai, 20 deaths.
France: Nantes, Jan. 1-31, 2 cases; Rheims, Feb. 7-14, 1 case.
Great Britain: Feb. 6-13, Edinburgh, 19 cases, 1 death; Hull, 3 cases, 1 death; Manchester, 1 case; South Shields, 2 cases, 1 death; Jan. 30-Feb. 13, Leith, 5 cases; London, 11 cases.
India: Bombay, Jan. 26-Feb. 2, 10 deaths; Karachi, Jan. 24-31, 1 case.
Java: Batavia, Jan. 16-23, 15 cases, 2 deaths.
Malta: Jan. 16-30, 4 cases.
Mexico: City of Mexico, Feb. 14-21, 16 cases, 8 deaths.
Netherlands: Amsterdam, Feb. 6-20, 7 cases, 1 death.
Russia: Moscow, Jan. 23-Feb. 6, 15 cases, 5 deaths; St. Petersburg, Jan. 30-Feb. 6, 2 cases, 2 deaths.
Spain: Santander, Jan. 8-15, 3 cases.
Turkey: Constantinople, Jan. 31-Feb. 14, 23 deaths.

YELLOW FEVER.

Brazil: Rio de Janeiro, Jan. 24-31, 5 cases, 1 death.
Mexico: Feb. 13-20, Merida, 1 case; Vera Cruz, 1 case.

CHOLERA—INSULAR.

Philippine Islands: Provinces, Jan. 9-16, 219 cases, 163 deaths.

CHOLERA—FOREIGN.

India: Calcutta, Jan. 23-30, 27 deaths; Madras, Jan. 16-22, 2 deaths.

PLAGUE—UNITED STATES.

California: San Francisco, Feb. 8, 1 case bacteriologically confirmed February 27.

PLAGUE—INSULAR.

Philippine Islands, Manila, Jan. 9-16, 5 cases, 4 deaths.

PLAGUE—FOREIGN.

Africa: Port Elizabeth, Jan. 9-16, 2 cases, 2 deaths.
Brazil: Para, Jan. 28-30, 9 cases; Rio de Janeiro, Jan. 24-31, 8 cases, 5 deaths.
India: Bombay, Jan. 26-Feb. 2, 384 deaths; Calcutta, Jan. 23-30, 17 deaths; Karachi, Jan. 24-31, 11 cases, 10 deaths.
Mauritius: Jan. 21-Feb. 4, 45 cases, 32 deaths.

Society Proceedings.

COMING MEETINGS.

Medical Society of the Missouri Valley, Lincoln, Neb., March 24.
Medical Association of the District of Columbia, Washington, April 5.
Tennessee State Medical Association, Chattanooga, April 12.
South Carolina Medical Association, Darlington, April 13.

CHICAGO MEDICAL SOCIETY.

Regular Meeting, held March 2, 1904.

The President, Dr. R. B. Preble, in the Chair.

Hereditary Syphilis.

Dr. Hugh T. Patrick presented a woman 41 years of age, whose trouble dated back to 1899. He saw her in 1901 for the first time. She suffered from dizziness, failure of vision, intense headaches, and considerable mental and physical hebetude. Following this she developed double vision, which lasted for a few months. Acuity of vision diminished rapidly. Some time later she fell and was unconscious for a short time. When she regained consciousness she vomited. A month later she had another fall, and was also unconscious for a short time. During all this time the severe headaches continued. After several months of these headaches, mental hebetude, double vision, and two unconscious attacks, she was removed to St. Luke's Hospital, and on the day following her arrival became unconscious, and remained so for twenty-four hours. She vomited just before she became unconscious. When she regained consciousness, everything looked blurred, and the left side was paralyzed. The arm became weak first, then the leg, and later the face became involved. With the left hemiplegia there was marked sensory disturbance; marked anesthesia, which continued for a considerable time. Two years after the attack, when patient had regained very good use of the left side, there was still considerable subjective trouble on that side, but very little objective trouble. Patient uses the left hand for practical purposes, but it is not as dexterous as it was, and it feels queer. She has complete homonymous hemianopia. The visual field is normal on one side, but gone on the other. As the result of her trouble, the patient has permanent hemianopia, although she has nearly recovered from her left hemiplegia. The patient is absolutely ignorant of any specific infection.

Dr. Patrick presented another case, a woman 21 years of age, whose mother is at present suffering from tabes, with optic atrophy. The oldest child, a son, died about two years ago from general paresis. The next child, also a son, is at present suffering from tabes, with optic atropny. Patient is the third and only remaining child, who, as an infant, had snuffles, and later developed mucous excrescences. Two and a half years ago she had a typical interstitial keratitis, but up to three years ago, aside from the trivial ailments of childhood, she was well. One day, while sitting on the step, she had a sort of stroke without loss of consciousness; became weak on one side, more especially in the face. The next morning she had another stroke which involved all of the right side. This attack was transient. A month later she had another attack of right hemiparesis, which was a little more severe, and three months later a fourth attack, which was very severe, which left her completely hemiplegic on the right side with aphasia. First the face, then the arm and leg became involved. A year and a half ago patient developed typical jacksonian fits. These fits started with twitching and drawing in of the right side of the face, which extended to the arm, then to the leg, after which she had a general epileptic attack. Sometimes the spasm does not go so far. The face and arm may be convulsed, with no loss of consciousness. Sometimes she has a severe attack which terminates in a general convulsion. Attention was called to the defective teeth of the patient. She also has a disseminated choroiditis. Patient showed unmistakable signs of hereditary syphilis, and Dr. Patrick said the question arose whether the two boys inherited syphilis or had it communicated to them as children. Either was possible; but the family showed the relation between specific disease, tabes and general paresis.

Dr. L. Blake Baldwin showed a Chinaman with syphilis. He had treated eleven cases of this disease in Chinamen. He brought the case for diagnosis. As it was difficult to get a history of such cases, he ventured to say that 90 per cent. of the cases of Chinamen who consult physicians have this disease. With this thought in mind he had given all of them iodid of potassium with good results in most cases. When these patients presented themselves with facial paralysis, paralysis of the arm and leg, with large ulcerations on the leg, it was wise to give them iodid of potassium. The patient denied any initial lesion. Dr. Baldwin also showed several other cases.

Dr. Frederick Menge showed three cases. One was a boy 12 years of age who had hereditary syphilis. Patient had an active proliferating gumma in the nose, springing from the septum on both sides, filling the interior meatus and occluding both nostrils. He had also complete erosion of the uvula.

The second case was a young man who had large syphilitic eschars on the soft and hard palates. The uvula was almost obliterated from syphilitic erosions. In this case the infection occurred thirteen years ago, while the erosions caused the scars three years ago.

Dr. George F. Suker showed a boy who had a typical syphilitic head. He had the tripod of Hutchinson; interstitial keratitis, otitis media, and saddle nose, as well as syphilitic rhinitis, bilateral dacryocystitis and stenosis of the lachrymal duct. Patellar tendon reflex was not lost. Patient had what is called the Darier tooth; atrophy of the upper jaw and of the hard palate. Patient had had these affections since the second week of birth. Attention was called to the typical Hutchinson teeth. The boy was a typical example of inherited syphilis.

Dr. E. A. Fischkin presented a patient who gave a history of having had a primary lesion some twelve years ago, the nature of which was not definitely known. Patient said he did not have secondary lesions, but did have mucous patches, and was free from other manifestations of syphilis for twelve years. Patient had been married five years, and had healthy children. About fourteen months ago purpuric spots began to appear on the lower extremities. Three months ago tubercles appeared on the side of the nose, which were circinate in form, gradually enlarged, and finally ulcerated. Patient was put on iodids and given inunction treatment. Soon the whole leg was covered with purpura, but the spots were closer together, particularly on the surface where the ointment was rubbed in. The question arose in the author's mind as to whether he was justified in calling the case purpuric syphilis, or was the purpura due to the toxic effect of the treatment. Against the latter, it should be said that the patient had purpura twelve weeks ago without treatment.

The second case was a girl 15 years of age who presented a typical tertiary, ulcerating syphilid on the leg. Patient also presented syphilitic scars of the type represented by atrophy and pigmentation. The history was entirely negative. The disease was of two years' duration. If she had acquired syphilis, the primary infection must have occurred when she was 12 or 13. There were a number of scars on the leg and a general adenopathy.

Dr. George F. Suker showed two cases of syphilitic iritis. In one the eye was very painful, while in the other there was scarcely any pain. One had a small corneal ulcer. The patient admitted having had syphilitic infection about a year ago, but now had the secondary manifestations of the disease, with marked adhesions of the iris, and excessive proliferation of the pigmentary layer of the posterior surface of the iris, with a large portion of the anterior surface of the capsule of the lens being involved. There was great reduction of sight, with pupillary adhesion. The corneal ulcer was situated toward the nasal side.

Dr. David Lieberthal showed a case of secondary syphilis, and discussed the differential diagnosis between this disease and lupus vulgaris.

Dr. W. L. Baum showed a patient on account of the anomalous action of some scar tissue of syphilitic origin. The man was under treatment at his clinic a number of years ago. At that time he presented himself with a history of specific infection, followed by ulcerations and keloid-like scars. These were hard and firm and projected beyond the surrounding skin. They appeared under treatment, but a feature of unusual interest was that repigmentation had started in the scar tissue. This was generally denied by dermatologists. He was not prepared to offer any explanation for it, but it was contrary to ideas of pathology and the physiologic relations of this process.

Dr. Hugh T. Patrick, after examining Dr. Baldwin's case of the Chinaman, said that it was one of thrombosis of the sylvian artery, with right hemiplegia and aphasia. The patient had exaggerated reflexes and the typical Babinski sign.

KANSAS CITY ACADEMY OF MEDICINE.

Regular Meeting, held Feb. 29, 1904.

General Anesthesia.

The attendance was large, with an unusually large number of visitors present.

Dr. George Seitz read the paper assigned on the program on "General Anesthesia." In general surgical anesthesia complete paralysis of sensibility is required, but different operations demand different degrees of anesthesia. When possible the patient should be prepared by having the bowels moved and the last meal before the anesthesia should be at least six hours previous. It should consist of light food only. The patient's physical condition should be thoroughly studied. In giving the anesthetic it should be purposed to cause as little excitement of the patient as possible and to give the very least amount of ether or chloroform sufficient to produce the desired effect. With chloroform the pulse should not be allowed to fall below 60, and with ether a pulse of 150 need occasion no alarm. The head should be kept turned to one side, and the pharynx and mouth occasionally wiped in order to prevent the inspiration of saliva which, with ether, is secreted in an excessive amount. The occiput should be held well back, no pillow should be used and the jaw held slightly forward. This position facilitates free breathing. The pupil should never be dilated. Esmarch's mask is good, as is also the Allis cone. The latter is hard to keep clean. Mouth gag, tongue forceps, sponge forceps, hypodermics and stimulants must be provided before any anesthesia is begun. In lung diseases, such as bronchitis, asthma, or emphysema, chloroform should be selected. In mitral lesions chloroform should be given. In aortic lesions, aneurism, or atheroma, it is well to begin with chloroform and to continue with either. Degeneration of the myocardium contraindicates any anesthetic. In kidney disease ether is not contraindicated, but many prefer chloroform. For general work and in the vast majority of cases anesthesia induced by nitrous oxid and continued with ether is the best. Dr. Seitz prefers Bennett's apparatus to any other.

The paper was discussed by Drs. Anderson, Fulton, Mallett, Van Eman, West, Lichtenberg, O'Donnell, Hertzler, Gray, Crabill, Beattie, Sloan and Ritter.

Therapeutics.

Gonorrhea.

The following treatment of gonorrhea has been carried out successfully by Dr. David Shoemaker of Truckee, Cal., and he has derived excellent results in a limited number of cases. He sends us the description in order that his method may be tried more extensively. The technic is as follows: "To two quarts of quite warm water, in a fountain syringe, add six ounces of a saturated solution of picric acid; attach a small No. 9 soft rubber catheter to the nozzle of the syringe and proceed to irrigate. In a recent case, allow the flow to begin as soon as the eye of the catheter has passed the meatus, and wash out only the first two or three inches of the urethra. In an old case that has invaded the posterior urethra, detach the catheter, pass it into the bladder and allow the urine to escape, then attach it to the syringe and partially fill the bladder with the solution, directing the patient to retain this as long as he can conveniently. The catheter is then slowly withdrawn until the solution flows back through the meatus, retaining the catheter at the point at which this occurred until the irrigation is completed. The retained fluid in the bladder prevents infection of that organ and is curative if that has already occurred. This solution causes practically no pain, and its strength may be greatly increased without discomfort to the patient. To avoid a disagreeable staining of the operator's fingers, some lubricant should be used on them. In fresh cases it is rare to see a purulent discharge after the first irrigation and in the older cases the improvement is noticeable at once. This solution is never placed in the hands of the patient for use."

The foregoing treatment is certainly definitely outlined, making it of practical benefit.

Asthma in Children.

According to *Rev. de Ther.*, the best remedy for the treatment of asthma in children is belladonna, giving one pill daily of extract of belladonna, gr. ⅛ (.008), or pulverized belladonna, gr. 1/6 ((.01).

The following combinations are also recommended in the treatment of asthma:

℞.	Ext. grindeliæ robustæ			
	Tinct. lobeliæ, āā	gtt. xv	1	
	Tinct. pulsatillæ	ʒss	2	
	Syr. aurantii flor. q. s. ad	℥iii	90	

M. Sig.: To be taken in one or two days.

In the intervals the iodids should be given. The following combination serves the purpose:

℞.	Sodii arsenatis	gr. 1/3		02
	Potass. iodidi			
	Potass. bromidi, āā	gr. xxx	2	
	Tinct. lobeliæ	m. xxx	2	
	Syr. aurantii flor. q. s. ad	℥iv	120	

M. Sig.: One teaspoonful three times a day.

Thrush.

In the treatment of thrush, where there are simply white, isolated, slightly elevated, firmly adherent dots or macules, Dr. E. Graetzer, in *Post Grad.*, recommends repeated cleansing of the mouth with water, especially after meals. Mechanical rubbing with the finger wrapped in fine linen or absorbent cotton—whereby slight bleeding need cause no alarm—will usually suffice. In the confluent form, where the whole buccal mucous membrane down to the pharynx is dark red, dry and covered with numerous white patches or even where large white membrane covers the surface, tonics are indicated, as the patients are usually exhausted or atrophic. The underlying cause, such as diarrhea, must be treated. Locally the mouth must be washed with an alkaline solution, such as sodium borate or a solution of benzoate of sodium, 40 per cent. strength; or salt water, half a teaspoonful of salt to a glass of water. Some authors use potassium permanganate, 1 to 100; or sodium borate in glycerin, 1 to 4. "Sucking bags," containing boracic acid, are of value. A pledget of sterilized cotton, well covered with finely powdered boracic acid *mixed* with saccharin, is wrapped in a small sterilized rag of silk or fine gauze and given to the child to suck and chew on. These bags should be renewed once in twenty-four hours. In severe cases, the author advocates an application of silver nitrate, 1 to 3 per cent., once daily.

As prophylactic treatment, thorough cleanliness of the nipples and breasts must be observed. The breast nipples should be washed with an alkaline solution before and after nursing. The rooms must be well ventilated, general health improved and any gastrointestinal disturbances corrected. In thrush involving the esophagus and stomach the internal administration of resorcin (.5 to 1.00 to 100) is of benefit.

Holt recommends solutions of sodium borate or sodium bicarbonate, ten grains to the ounce, and applied four times daily, observing care not to injure the epithelium. Applications containing honey or syrup must especially be avoided where the disease is produced by irritation of the rubber nipple, feeding by gavage is resorted to for two or three days, under which method improvement takes place more rapidly.

Epilepsy.

In the treatment of epilepsy medicinally, according to Bjorkmann in *Merck's Archives*, the bromids should be pushed to their full physiologic limit. To begin with, he recommends the potassium salt in doses ranging from grains 40 (2.65) to grains 75 (5.00) daily, increasing it to triple the amount if necessary. If the digestive organs rebel the salt may properly be given in Vichy or seltzer water, or the sodium salt may be substituted, given as follows:

℞.	Sodii bromidi	℥ii	60	

Sig.: One teaspoonful in a claret glass of seltzer water before meals and repeated once during the day.

Or the bromids may be given in combination as follows:

℞.	Sodii brom.			
	Ammon. brom., āā	gr. lxxv	5	
	Aq. menth. pip.	℥ii	60	

M. Sig.: One teaspoonful morning and night.

And for children the following combination:

℞.	Sodii brom.			
	Potass. brom., āā	gr. lxxv	5	
	Ammon. brom.	gr. xl	2	65
	Aq. destil.	℥vii	210	

M. Sig.: A dessertspoonful to a tablespoonful three to five times a day, according to the age.

A good combination for adults is the following:

℞.	Pot. brom.	ʒv	20	
	Ammon. brom.	ʒiiss	10	
	Sodii brom.	ʒv	20	

M. Sig.: One-half a teaspoonful dissolved in seltzer water three times a day.

Bromids, according to the author, should always be given before meals, well diluted. Larger doses should be given before the expected paroxysm, which will at least shorten the spell if not abort it. In some cases the bromid may be combined with chloral or opium for a short time only. In cases where a heart tonic is indicated in combination with the bromids the following may be prescribed:

℞.	Infus. digitalis	℥ii	60	
	Sodii bromidi	ʒiiss	10	
	Ol. menth. pip.	gtt. i		06
	Syrupi q. s. ad	℥vii	210	

M. Sig.: One tablespoonful every two hours, to be continued for several weeks.

Or the following may be substituted:

℞.	Infus. adonis vernalis	℥v	150	
	Sodii brom.	ʒiiss	10	
	Olei menth. pip.	gtt. iii		20

M. Sig.: One tablespoonful morning and night.

In cases of idiosyncrasy for the bromids the following containing sodium borate may be substituted:

℞.	Sodii boratis	ʒi	4	
	Aq. destil.	℥v	150	
	Syr. aurantii corticis q. s. ad	℥vi	180	

M. Sig.: One tablespoonful two or three times a day.

During an epileptic attack the patient should be placed in a recumbent position, the clothing loosened about the neck and waist. The tongue of the patient should be protected by placing rubber or cork between the teeth. If status epilepticus is feared, it may be wise to prevent exaggerated convulsions by administering a small amount of chloroform. In petit mal, nitroglycerin is frequently of great service, producing, as it does, a moderate hyperemia of the brain, if the doses are not too liberal, grain 1/100 to 1/50 (.0006-.0012).

The attempt to prevent or check an attack at the appearance of the aura, either by constricting or rubbing the part from which the aura emanates, is sometimes successful.

The following combination, which is recommended by Dr. Daniel R. Brower, seems to be the ideal combination in the treatment of epilepsy:

℞.	Sodii bromidi	ʒx	40
	Ext. solani carolinense flu.	℥ii	60
	Aq. camphoræ q. s. ad	℥iv	120

M. Sig.: One teaspoonful three times a day in water.

To prevent the acne which may be caused by large doses of the bromids *small doses of arsenic may* be added in the form of Fowler's solution or Pearson's solution, two or three drops of either. If a heart tonic is indicated four or five drops of the tincture of adonis vernalis may be added to each dose of the bromid.

The following combination containing chloral is sometimes of service in nocturnal epilepsy:

℞.	Chloralis	gr. lxxx	5	30
	Pot. bromidi	ʒii	8	
	Syr. aurantii	ʒiv	15	
	Aq. menth. verid. q. s. ad	℥ii	60	

M. Sig.: One dessertspoonful at bedtime in water.

Strontium bromid is said to contain a greater amount of bromin than the other salts. It may be given as follows:

℞.	Strontii brom.	ʒv	20
	Sodii brom.	ʒiiss	10
	Aq. feniculi q. s. ad	℥iv	120

M. Sig.: One teaspoonful after meals and at bedtime in water.

Medicolegal.

Dying Declarations.—The Supreme Court of Louisiana holds, in the case of State vs. Brown, that declarations properly considered at the time to be dying declarations do not lose their character as such by the fact that the party making them lives some time afterward.

Permitting Expert Witnesses to Remain in Courtroom.—The Supreme Court of Louisiana holds, in the homicide case of State vs. Forbes, that a ruling of the court permitting expert witnesses to remain in the courtroom during the trial is not ground to set aside the verdict. The rule, it says, is largely left to the discretion of the trial judge.

Liability for Care of Smallpox Patients in Iowa.—The Supreme Court of Iowa says, in the case of Walker vs. Boone County, brought by a physician, to recover for services rendered in taking charge of a pest-house and caring for smallpox patients, after a city board of health had approved his claim, that the mayor and city council of each city in that state constitute a local board of health. And where it is made to appear that smallpox or other disease dangerous to the public health exists, the board has power to make provision for the care of patients, and may remove the same to a separate house, or to a detention camp or hospital. It may provide nurses, needful assistance and supplies, which shall be charged to the patient, or those liable for his support, if able; if unable, it shall be done at the expense of the county. Code, Section 2570. By Code, Section 2571, it is further provided, among other things, that all expenses incurred in the enforcement of the provisions of the Code relating to the public health, when not otherwise provided, shall be paid by the city. The expression "when not otherwise provided," as used in this section, can have relation only to the provision made in Section 2570 for charging matters of expense to the county, as the matter of the expense incident to the enforcement of the laws relating to public health is nowhere else referred to. Now, the reading of the provision in Section 2570 is plain, and the meaning unmistakable. If the patient is unable to pay, and those liable for his support are unable to pay, then the county must bear the expense. The corollary follows that the county can not be made to pay except that the conditions on which its liability depends are made to appear. In this case the record did not disclose that the physician suing made proof that the patients attended by him and those liable for their support were unable to pay. Such being the condition of the record, it followed that the trial court did not err in sustaining a motion for a verdict in favor of the county and entering a judgment against the party suing for costs.

Waiver of Privilege Extends to Future Trials.—The Second Appellate Division of the Supreme Court of New York, in considering, in the case of Schlotterer vs. the Brooklyn and New York Ferry Co., the effect of the provision of the statute that the express waiver of privilege required must be "on the trial or examination," says that the purpose of the statute is to cover the relation of physician and patient with the cloak of confidence. The purpose is to save the patient from possible humiliation or distress, not to enable him to win a lawsuit. If the patient once permit the physician to testify, there is no longer any reason at any time for excluding competent testimony under the plea of public policy. If the patient once voluntarily renounce the protection of the statute, his waiver is everlasting and irrevocable. So it thinks that the purpose of the provision referred to was not to limit the continuous force of a waiver, and thus to permit the patient to use the statute once as a shield and anon as a sword, but by way of further assurance that the waiver had been formally, clearly, and certainly made. Nor does it think that the language of the statute, in the further provision that the waiver "must be made in open court on the trial of the action or proceeding," authorizes a construction which affords the privilege, notwithstanding the reason for its continuance has ceased to exist. it says that it simply means that, when the waiver is made, it must be made in open court on a trial of the action. It thus affords a safeguard that the waiver was duly made, but not a shift of the waiver, once made. And the court holds that a trial was a trial of the action, within the purview of the statute, where it appeared that, after trying her case after a nonsuit, the party suing began anew, but proceeded on the same cause of action against the same defendant.

Impotence and Marriage and Divorce.—The Court of Chancery of New Jersey says, in what is entitled the case of "G—— vs. G——," that cases of impotence are so rare that the rules governing the action of the courts in such cases are not thoroughly settled. In England the notion seems to have been entertained formerly that complete impotence rendered a marriage void from the beginning, precisely the same as would the existence in life at the time of the marriage of an undivorced spouse of one or the other of the parties, or the fact that the parties were related within the prohibited degrees of consanguinity. This is evidenced by the mode in which suits were framed. The English judicial reports show that suits for a declaration of nullity on account of impotence were framed in this wise: A., falsely called B., vs. B. This was the form in suits for nullity for the other two causes mentioned. But the later cases establish clearly the doctrine that contracts of marriage between parties, one of whom is impotent, are voidable, merely. In New Jersey, the legislature, in the revision of the divorce act of 1902, has provided for decrees from the bond of matrimony in cases of adultery, desertion, and incurable impotence, using the following language: "In case the parties, or either of them was at the time of the marriage physically and incurably impotent, or was incapable of consenting thereto, and the marriage has not been subsequently ratified." In a case of impotency the parties have the power to contract, and the marriage is binding for all purposes, unless it is dissolved by a decree of court at the instance of the party having the right to make the complaint. Thus it seems clear that the widow of an impotent husband would be entitled to dower in his estate, in the absence of a decree of dissolution. The ground on which the decree of dissolution is based is not an original incapacity to contract, but the entire and complete failure of the consideration of the marriage contract. Hence the better doctrine is that the contract of marriage is voidable merely, and not void from the beginning. The statute quoted assumes that it may be ratified. But be that as it may, the clear trend of authority, as stated, is that the marriage is not void from the beginning, but merely voidable at the instance of the disappointed party. If that is so, then the correct doctrine is that such party may ratify it. It is suggested with much force that such ratification may result from a long-continued acceptance and enjoyment of the benefits of a merely platonic marriage, so that the disappointed party will not be permitted, after such long enjoyment, to repudiate the contract.

Current Medical Literature.

AMERICAN.

Titles marked with an asterisk (*) are abstracted below.

American Medicine, Philadelphia.

February 27.

1 *Diagnosis and Treatment of Thoracic Aneurism. Stephen S. Burt.
2 *Retroperitoneal Infection a Result of Appendicitis. I. S. Stone.
3 *"Urethral Labia," or "Urethral Hymen." Pathologic Structures, Due to Repeated Traction. Robert L. Dickinson.
4 *A New Technic in Operations for Appendicitis. W. Easterly Ashton.
5 Pathology of Leukemia. Edward T. Williams.
6 *Treatment of Cervical Adenitis. F. S. Bulkeley.
7 Report of Hemorrhagic Septicemia in Animals in the Philippine Islands. Paul G. Woolley and J. W. Jobling.

1. Thoracic Aneurism.—Burt's article is very detailed as regards diagnosis—too much so to be easily abstracted. He notices the leading characteristic symptoms, such as tracheal tugging, physical signs, pain extending down the right arm and dyspnea, and discusses in particular the characteristic differences between aneurism and malignant growths. For treatment he recommends absolute rest, mental as well as physical, and restriction in the amount of food, especially fluid, and iodid medication. All these expedients are intended to favor the deposition of fibrin in the sac. Sacculated aneurisms with relatively small openings are most benefited by treatment. He does not speak well of the use of the introduction of foreign bodies into the sac as a satisfactory method. Three cases are reported, one with recovery, under the potassium iodid treatment.

2. Appendicitis.—Stone calls particular attention to the dangers of retroperitoneal abscess, especially in cases where the appendix points to the left and downward. The symptoms are mainly those of septicemia in addition to appendicitis. Persistent high temperature and quick pulse after appendectomy should always suggest posterior complications, especially when one or two weeks have elapsed before operation. Such symptoms *may disappear*, but not as a rule, and it is important that we should check what may become systemic infection. He sums up the indications as follows:

1. We should consider every "delayed case" with anxiety, lest there should be retroperitoneal infection.
2. We should be careful to give a [illegible] 'n every case of appendicitis ushered in by, or [illegible] or any symptoms of sepsis.
3. If operating in such cases, we should consider retroperitoneal infection as already started and act accordingly. The discovery and proper treatment of such infection is quite as important as the usual intraperitoneal technic.

In view of the possibilities of retroperitoneal infection, we assume a great responsibility by advising non-intervention in appendicitis, and while we often advise delay when we believe the lesions strictly intraperitoneal, yet it would appear that such a course is very unsafe and it should be condemned when we have reason to fear the complications described.

3. Urethral Labia.—Dickinson notices the recent paper by Howard Kelly in *American Medicine*, Sept. 12 and 19, 1903, noticed in The Journal of Sept. 26 and Oct. 3, 1903, pp. 805 and 878, and remarks that he described the same condition in *American Gynecology*, September, 1902. (See The Journal, Oct. 25, 1902, p. 1073.) The so-called urethral labia are not normal protective organs, as Kelly supposed, but are always artificial and pathologic. They occur only when there are hypertrophies at the labia minora and clear-cut evidence of traction, pressure and friction. He considers that they are an enlargement of the anterior portion of the hymen. They have no protective function, but are connected with special sense. The only certain method of cure is section with the cautery wire.

4. Appendicitis.—The new operation described by Ashton consists in pulling out the head of the cecum from the wound, keeping the appendix taut with control ligatures, then packing with gauze and severing the appendix at its origin and closing with a purse-string suture, supplemented by a Lembert suture to prevent leakage. The article is very fully illustrated. The steps of the operation are given as follows:

1. After the appendix has been located and freed from adhesions, the head of the colon is brought within the abdominal incision. A No. 7 braided silk ligature is then tied around the tip of the appendix, the free ends knotted and the loop, which should be about 6 inches long, is held taut by the assistant.
2. A ligature of the same material is now passed through all the coats of the colon, except the mucous, about three-quarters of an inch beyond each side of the base of the appendix. The free ends of the ligatures are then tied, leaving two loops, each 6 inches long, which are used to control the head of the bowel. A purse string suture is now passed through all the coats of the bowel, except the mucous, about a half inch from the base of the appendix.
3. The appendix and head of the colon are now completely under the control of the operator, who keeps the appendix taut by traction on the ligature, which is tied around its tip. At the same time the assistant grasps the loop on each side of the base of the appendix, and by making traction on them holds the head of the colon well within the abdominal incision.
4. The seat of operation is now shut off from the surrounding parts by packing a strip of plain gauze around the head of the colon.
5. The mesoappendix having been previously ligated and severed, a circular incision is made through the serous coat of the appendix about a half inch above its base.
6. The peritoneum is then stripped back beyond the base of the appendix with the scalpel.
7. The appendix is now amputated below its base with scissors curved on the flat.
8. The opening in the bowel is now closed by inverting its edges with forceps as the purse-string suture is tied, and subsequently introducing a mattress suture to guard against leakage.
9. The operator now douches the seat of the operation with warm normal salt solution, and dries the parts with a gauze sponge. The gauze packing is then removed; the control ligatures cut and withdrawn from the bowel; and the head of the colon allowed to sink into the abdominal cavity.

Special Directions.—The control ligatures which pass through the walls of the colon on either side of the base of the appendix must penetrate only the submucous or fibrous coat, because if they enter the lumen of the gut, infection may result from capillary attraction.

From the time the appendix is amputated until the opening in the colon is sutured and the field of operation douched and dried, the assistant must keep the control ligatures taut to prevent the bowel from becoming displaced and infecting the surrounding intestines.

The serous coat of the appendix must be stripped off well below its base so that when it is amputated a portion of the wall of the colon is also removed. This not only thoroughly eradicates all the diseased structures, but it also leaves no redundant tissue to interfere with the close approximation of the edges of the wound. As a matter of fact, under these circumstances, the serous coat usually retracts and partially closes the opening before the purse-string suture is drawn taut. The antiseptic precautions employed during the operation must be thoroughly carried out, as we are necessarily dealing with an open wound of the intestine. Therefore all instruments which come in contact with the seat of operation must be thrown aside at once, and not used again. Thus the knife which is employed to make the circular incision through the serous coat, and the scissors used to amputate the appendix, naturally become infected, and must be discarded at once. A serious mistake is often made from an antiseptic standpoint in operations of this character by using the same sponge several times on the seat of operation. This habit undoubtedly spreads infection and often causes postoperative complications which can easily be avoided. A sponge which has been pressed once against the tissues should be discarded and not used again. If this is not done the pathogenic germs which adhere to the sponge will be scattered over the uninfected areas surrounding the field of operation. In an aseptic [illegible] is, of course, unnecessary, but when as in an [illegible] sponge comes in contact with the contents of [illegible] it is obviously a dangerous practice, and one which must result in jeopardy to the life of the patient.

Variation in the Technic.—If for any reason a purse-string suture can not be used to close the opening in the colon, a Lembert or a Cushing suture may be substituted. The first six steps of the operation are the same as described above, and after amputating the appendix the surgeon then grasps the upper control ligature about an inch from the bowel with the fingers of his left hand to steady the field of operation while the wound is being closed. The sutures are introduced with a small, full curved intestinal needle, which must be held in the grasp of a needle-holder or a hemostatic forceps.

6. Cervical Adenitis.—Bulkeley points out that many cases of cervical adenitis occur in which the importance of avoiding or minimizing the scar is imperative and ordinary measures not advisable. In such cases aspiration or the use of a seton, or both, may prove successful. In case of tuberculous glands, such measures might also be successful, but there are some dangers. When such glands do not subside under medical treatment, excision done with extreme care and reasonably early is the elective method. Neither aspiration nor the use of a seton should be resorted to in such cases involving the deep cervical glands.

Medical Record, New York.

February 27.

8 *The Surgical Treatment of Facial Palsy, with the Technic of Facio-hypoglossal Nerve Anastomosis. Alfred S. Taylor and L. Pierce Clark.
9 *Questions of Urinalysis Bearing on the Diagnosis of Contracted Kidney. Beverley Robinson.
10 *The Hot Full Bath. Friedrich Grosse.
11 *The Ordinary "X" and Ultraviolet Rays in the Treatment of Tuberculosis. J. B. Ransom.
12 *Antistreptococcus Serum in Pernicious Anemia. James J. Walsh.
13 Hematoma of the Sternocleidomastoid Muscle: A Study of Three Cases. Theron W. Kilmer.

8. **The Surgery of Facial Palsy.**—The surgical treatment of facial palsy by facio-hypoglossal nerve anastomosis is described and discussed by Taylor and Clark. The operation is given in detail, with illustrations, which make it very intelligible. The conditions on which the results of operation depend are numerous. The best result follows in traumatic cases, and the least hopeful prospects are in those due to neuritis, especially when suppurative. In interstitial neuritis, it is well to wait a few months for signs of spontaneous recovery. In traumatic cases the anastomosis should be done at once. At the end of three to six months of treatment in non-traumatic cases, the neurologist can decide the propriety of operating. The degree of atrophy of the muscle is also an important indication; the more atrophy the less hope, therefore the advantage of the use of massage, electricity, etc., from the beginning to keep the muscles in good condition. The technic of the operation must be precise and delicate. The nerves must not be pinched or unduly handled, and the sutures must be fine and involve only the nerve sheaths. Asepsis is imperative, with the least possible amount of scar tissue. The after-treatment is important. The first degree of recovery consists in symmetry of the face during quiescence, without control of the muscles. The next degree consists in the return of volitional control, and the third degree in the return of emotional control. The authors remark on the physiologic association of the two centers of the hypoglossal and facial nerves, as shown in the frequent affection of both in disease. They favor this anastomosis especially on this account. They do not advise complete division of the hypoglossal, but would extend the facial laterally into it, though complete end-to-end nerve regeneration is most active and satisfactory. It, however, entails a permanent paralysis and atrophy of the muscles supplied by the hypoglossal, and they, therefore, do not advise it.

9. **Contracted Kidney.**—Robinson holds that in certain instances uranalysis alone will not enable us to make an exact diagnosis, and we should always consider other clinical signs and symptoms. In contracted kidney complicating acute disease, the outlook sometimes seems serious as far as the urinary symptoms indicate, but he thinks the prognosis is not invariably very threatening from a renal standpoint in spite of this fact. He has verified this very recently in a case of typhoid fever. The low output of urea may occur to an excessive degree at times, not necessarily to be followed by any manifestations of grave importance. It may, indeed, be compatible with many years of life if carefully and judiciously watched and treated.

10. **The Hot Full Bath.**—The hot full bath is here defined by Grosse as a bath above 100 or 102 F. It should cover the whole body to the jugular fossa, and the temperature should be 107 to 108. The patient should enter it slowly so that one or two minutes elapse before he is fully immersed. He should make no unnecessary movements to increase the sensation of heat, and Grosse does not favor the long duration bath. He has never given it higher than 108 or extended the time beyond eight minutes. There is no danger of catching cold after this bath so long as the patient returns within a quarter to half hour to shelter where he can not catch cold. The diuresis is increased. There is anemia of the internal parts with dilation of the arterioles. The heart action is accelerated. When the duration is short, the bath acts as a stimulant to the heart, but if too long continued, it may induce heart failure. Its action is based: 1, On powerful stimulation of the entire nervous system for a brief period; 2, an intense revulsion of circulation tending to hyperemesize the skin and unburden inner organs; 3, a perspiration more abundant than after any other form of bath; 4, a raising of metabolism, and 5, the creation of a sometimes valuable leucocytosis. It is indicated, therefore, whenever we want to incite energetically the metabolism or create a "curative fever," and when there are toxic substances to be eliminated by a perspiration and we wish to remove exudations and stagnations in the internal organs, and lastly, when we wish to energetically incite the entire vital cell activity. It is contraindicated in myocarditis, heart disease, marasmus, when there are fetid masses in the intestines, in case of pus collection anywhere in the body, and whenever, by thickening of the secretions, pus could be retained, as in otitis media, epididymitis, etc., and in all highly febrile conditions. As special indications, he mentions all maladies of the upper air passages, lung troubles, rheumatic diseases and all forms of climacteric troubles, syphilis, some ophthalmic disorders, neuritis and neuralgia. While some authorities consider the hot bath contraindicated in central nervous disease, some more recent neurologists have shown good effects, as in myelitis lumbodorsalis, hemiplegia, progressive pseudoparalysis, etc. Once in a case of locomotor ataxia he advised it, and had trouble in stopping the treatment, as the patient was inclined to overdo. It has also been recommended in some of the infectious diseases, in incipient influenza, infantile convulsions, colics, etc. He suggests the name "Baelz" for the bath, as corresponding with the terms Brand bath and the Ziemssen bath.

11. **Tuberculosis.**—Ransom claims that the x-ray is one of the most efficient therapeutic agencies for deep-seated pulmonary lesions, though he cautions against its employment in recent hemorrhagic cases. The precise manner of action is not known, but it is inhibitive to bacterial life and growth. A number of cases are reported.

12. **Pernicious Anemia.**—Basing his action on the theory of Hunter that pernicious anemia was started by infection from carious teeth and the reports of treatment with antistreptococcic serum, Walsh has tried serum treatment in one case without any satisfactory results. He therefore condemns it, holding that there is no possibility for determining the specific type of streptococcus that is indicated. Its success in septic disorders has been very poor excepting in rare instances.

Medical News, New York.

February 27.

14 *The Economic Value of Medical Science. W. Gilman Thompson.
15 *Etiology of Rachitis. P. Wm. Nathan.
16 *Splint for Treatment of Fracture of the Inferior Maxilla. Clinton B. Knapp.
17 *Thrush. H. Illoway.
18 *Internal Treatment of Diseases of the Bladder. Louis Stern.
19 *Chloroform in Labor. Edwin Ricketts.

14. **The Economic Value of Medical Science.**—Thompson points out the economic advantages that have ensued from advances in medical science, as shown in the better sanitation, the prolongation of life, the increase of its comforts, etc. He thinks the physician should do still more, and that a section might be organized on medical economics and medical sociology in some medical societies. The physician should take a greater interest and participation in public matters.

15. **Rachitis.**—Nathan discusses the theories in regard to rachitis, and especially those based on deficient chlorid of sodium and lack of calcium in the food. He has been able to test the question of the lack of calcium in cases in which he administered salt and phosphate of calcium regularly with-

out specially beneficial effects. From an analysis of a large number of cases treated with monocalcic phosphates as compared with those treated otherwise, he thinks we can conclude that a deficiency in quantity or faulty absorption is not the cause of rachitis. Some anomaly of metabolism, which, besides causing other abnormalities, is inimical to the normal calcification of bone, must form the starting point in our search for the cause of rachitis. How this is induced is difficult to explain, and will be until we have a better understanding of it than we have at present.

16. **Fracture of the Lower Jaw.**—Knapp describes a splint formed by a sort of tin cap over the head, with a gutter in front and above the eye, by means of which the lower jaw can be bandaged in such a way as to give tension upward and forward as is sometimes required. A bandage is passed under the jaw over the gutter in front, giving tension in the proper direction. This splint is easily made, light, and easy of application.

17. **Thrush.**—Illoway points out that this disorder is due to uncleanliness on the part of the nurse or parent, the *Oidium albicans* being readily introduced, and it rapidly propagates in children's mouths. The treatment of the milder forms is easy with hyposulphite or borax, but in the severer forms he has had the best results with a mixture of tincture of iodin and glycerin, ½ dram of the former to 3⅓ of the latter, applied locally to the parts with a camel's hair pencil. Two cases are reported. He thinks the glycerin is an important factor in the treatment. It loosens up the mycelium and makes its removal sure. This plan, he thinks, surpasses any that has heretofore been recommended in its readiness of application and in its harmlessness and rapidity of action.

18. **Bladder Diseases.**—Stern finds that in certain cases of bladder disease where the urine is strongly ammoniacal, urotropin is not decomposed, and hence does not yield up its formaldehyd. He has, therefore, used a new derivative of hexamethylene tetramin, known as helmitol or hexamethylenetetramin anhydromethylene citrate, which has important advantages, being not only less irritating, but more uniform in its action, the reaction of the urine having no effect on its sterilizing action, while it has some pain-relieving quality. Seven cases are reported of its use.

19. **Chloroform in Labor.**—Ricketts advocates the use of chloroform, a few drops on a handkerchief, held so that the patient inhales the vapor, but not allowing it to touch the face, and making sure that the patient has alternating intervals of air alone, to be followed by chloroform mixed with air. The face should not be obscured from the physician. Pulmonary tuberculosis, heart lesions, diabetes and albuminuria are not contraindications. The tendency is to use altogether too much. The patient should inhale in a shallow manner; deep inspiration is seldom necessary.

New York Medical Journal.

February 27.

20 Tertiary Syphilis of the Nose and Pharynx. W. Scott Renner.
21 *Some Points in the Care and Use of the Static Machine. Thomas W. Brockbank.
22 *[illegible] Cavernous Sinus; with a Report of Three [illegible]
23 *[illegible] Sign of Complete Anesthesia. Charles S. White.
24 *Frontal Sinusitis and Ophthalmoplegia Interna Partialis. H. Manning Fish.
25 *Use of Formaldehyd as a Preservative in Urine. Frank W. Kenney.
26 *The Comparative Digestibility of Raw, Pasteurized and Sterilized Milk. T. M. Price.

21. **The Static Machine.**—The failure of the static machine in the hands of many physicians is accounted for, according to Brockbank, by the neglect to prevent dampness within the machine. The material he has found best adapted to prevent such interference is fused chlorid of lime, which, however, must be freed from its water of crystallization by thorough baking and then transferred immediately to within the case of the machine. He has seen machines from which the slightest current could not be obtained treated as above described and working perfectly within less than an hour. Another point of importance is to keep all the metal parts clean and brightly polished. The platform should also be clean and have solid glass legs. The ordinary wooden ones with glass foundations are not sufficient, and cause great loss of current. These legs should be kept free from dust, which is liable to act as a conductor for the current, as he illustrates by an instance in his practice. Another thing that affects the efficacy is the imperfect grounding which should be perfect for both poles and also for the electrodes. The dropping of a brass chain from the indifferent pole to the floor is a very inefficient method. He connects his poles with a gas pipe, and for grounding the electrodes he carries a wire to the external water pipe, and in this way has a perfect system of grounding with far better therapeutic results.

22. **Thrombosis of the Cavernous Sinus.**—Roth reports three cases starting from trivial infections; in the first case from a carious tooth, in the second, from furuncle of the nose, and in the third, from one of the upper lip. These illustrate the danger of infectious lesions about the face and the great importance of prophylaxis in treatment. He describes the symptoms, such as high temperature with remissions, chills, profuse perspiration, usually rapid pulse and evidence of dissemination of septic emboli. Headache is an early and prominent symptom. Vomiting occurs from cerebral irritation, and convulsions occurred in one of the cases. The delirium is followed by gradual stupor. The characteristic symptoms and signs of cavernous sinus thrombosis are the results of stasis in the ophthalmic vein and its branches and pathognomonic eye symptoms. Swelling of the eyelids and edema of the skin are the first indications. Bulging of the eye develops soon after, and pressure on the motor nerves gives rise to diplopia. Immobility, photophobia and pain may be present. The pupil is at first small and later fully dilated. All these symptoms are at first unilateral, but gradually spread to the other eye. The treatment seems to be generally unsatisfactory. When the eye symptoms appear the patient is generally profoundly septic. The various operations to relieve the cellulitis and orbital condition that have been suggested have had apparently small results.

23. **Anesthesia.**—White points out the failure of signs of complete anesthesia. The pupil symptoms are not reliable, and the stretching of the sphincter ani is for obvious reasons not applicable in all cases. If deeply anesthetized, the patient remains quiet and breathes naturally, and this seems the most constant sign of all, but is not infallible. Anesthetists need a sign on which they can rely more thoroughly than on those possessed by them at present.

24. **Frontal Sinusitis and Ophthalmoplegia.**—Five cases are reported by Fish illustrating the fact that the most constant symptom of frontal sinusitis is eyestrain or asthenopia consequent to an accommodation paresis. He notes further the fact that internal partial ophthalmoplegia, coming on suddenly, appearing at different intervals and of variable degrees in an emmetropic eye, or one made so by correction, and not otherwise attributable, is very suggestive of sinus involvement, as illustrated in these cases.

25. **Formaldehyd in the Urine.**—Kenney notices the fact that formaldehyd is frequently used as a preservative of urine, and the further fact that it causes, with the Heller test, a reaction analogous to that of albuminuria. He concludes from his study of the subject that it is not advisable to utilize formaldehyd as an artificial ingredient in the urine, as it will help to mislead in making urinalysis. It makes the urine appear albuminous when it is negative, and a typical reaction is not obtained when albumin is present. The reliability of Introna's test (described in The Journal November 14, namely, the use of formaldehyd in albuminous urine as a reagent), is to be questioned, since the effect of formaldehyd on negative urine is the same, though to a more marked degree, than that on albumin in solution, the difference in the color and density of the precipitate being, as Kenney remarks, immaterial. The therapeutic use of urotropin as a causal factor of possible pseudo-albuminuria is a subject he thinks worthy of study.

26. **Milk.**—Price has experimented on calves with raw, pasteurized and sterilized milk. The results were, with one

exception, highly in favor of the raw milk. The use of sterile milk, excepting in one calf, made it impossible to obtain the feces for analysis, scouring being produced. This was retested on 6 calves, 6 others being used as controls with the raw milk; all 6 were thoroughly scoured out by the sterilized milk. This seems to be a little contrary to the usual prevailing ideas, as sterilized milk has been supposed to cause constipation and has been advocated as a cure for diarrhea in calves. He thinks that anything that would make milk harmful and less digestible in the calf, should certainly be looked on with suspicion before it is given to an infant, notwithstanding the wide difference in the digestive organs of the two.

Cincinnati Lancet-Clinic.

February 27.

27 Causes, Symptoms, Prognosis and Cases of Accidental Hemorrhage. Magnus A. Tate.
28 The Necessity of Medical Organization. C. T. Hendershot.
29 Case of Septic Cysto-pyelo-nephritis, Postpartum. Robert W. Stewart.

St. Louis Medical Review.

February 27.

30 Presentation of Specimens from a Case of Gunshot Wounds of the Intestines, Showing Result Obtained in End-to-end Anastomosis with Murphy Button and Connell Suture. Walter C. G. Kirchner.
31 My Autobiography and Reminiscences. (Continued.) S. Pollak.

The Laryngoscope, St. Louis.

February.

32 *Suppuration of the Maxillary Antrum: with Special Reference to Diagnosis and Treatment. Herbert Tilley.
33 *Alarming Hemorrhage Following Tonsillotomy: Its Cause and Cure. Harmon Smith.

32. Suppuration of the Maxillary Antrum.—Tilley's article is a very complete review of the subject in its various aspects. He concludes that in the vast majority of cases there is evidence to show that dental disease acts as an exciting, or at least, a predisposing cause, and that to dentists we should, therefore, look for the prevention which is better than cure. The diagnosis can be greatly assisted by trans-illumination, and can be rendered absolutely certain by intranasal puncture which sacrifices no tooth, is easy and almost painlessly performed. The treatment resolves itself into two methods: 1, Alveolar drainage which may cure comparatively recent cases, occasionally chronic ones, and give relief in any, and the radical operation which can be called on to cure all cases in which other methods have failed.

33. Hemorrhage After Tonsillotomy.—Smith has collected all the cases of dangerous hemorrhage in the literature, including three of his own, a total of 54, with 6 deaths. He summarizes them all, with his own experience. He has much faith in the tonsillar hemostat of Mikulicz-Stoerk, and has found it almost absolutely necessary in certain cases where he has employed it. It is not always easy to apply it properly. Too much pressure long continued may cause sloughing, but it is a sure means of controlling hemorrhage when it occurs.

California State Journal of Medicine, San Francisco.

February.

34 *Traumatic Neuroses. H. G. Brainerd.
35 Peritoneal Adhesions. Their Symptomatology, Pathology and Prevention. (Concluded.) E. E. Kelly.
36 Cases of Tuberculosis of the Genito-urinary Tract, with Remarks. (Concluded.) George Chismore.
37 *Occipito-posterior Positions. Geo. L. Cole.
38 Was It a Case of Meningeal Hemorrhage, Hysteria or Malingering? H. J. B. Wright.
39 Grawitz Tumor of Kidney. (To be continued.) E. O. Jellinek.
40 Necessity for the Systematic Annual Examination of School Children's Eyes, Ears, Noses and Throats by School Teachers. Including a Reply to Prof. Leslie's Leaflet. (To be continued.) Frank Allport.
41 *Vasectomy. An Argument for Its Therapeutic Use in Certain Mental Diseases and as a Means of Diminishing Crime and the Number of Criminals. C. N. Ellinwood.

34. Traumatic Neuroses.—Brainerd reports two cases in neither of which was there any medicolegal complications, and in which there was no previous history of hysteria and neuroses and no severe concussion. They were cases of pure traumatic neuroses in which neither the advice nor solicitude of the physician nor the suggestions of friends or attorneys had anything to do with the illness. There was no alarm before the injury and no mental shock. The trauma was the exciting cause in both cases, and the same conditions may hold good in other cases, even if there is litigation connected with them.

37. Occipitoposterior Positions.—Cole concludes that occipitoposterior positions are tedious and painful and among the most disagreeable obstetric complications. Early diagnosis is desirable, and there is often a question as to the best method of meeting the disorder. Plenty of time should be given before the use of forceps; in using the latter, traction should be made with the handles as low as possible and pressure on the head be frequently released. The perineum is frequently partially or completely lacerated, and should be repaired at once. He quotes authorities freely in regard to the matter.

41. Vasectomy.—This procedure is advocated by Ellinwood as a regular operation in imbeciles, maniacs and criminals. He thinks it is free from the after-effects of castration, such as mental depression and hypochondria, and is less repulsive to the patient and is equally effective. He reports a case in which it was followed by marked benefit in a youth with maniacal tendencies under sexual excitement.

St. Paul Medical Journal.

February.

42 *Chronic Ulcer of the Stomach and Duodenum from a Surgical Standpoint. With Some Remarks on Gastric Cancer. William J. Mayo.
43 Notes on the Requirements of Modern Hospital Architecture. Arthur B. Ancker.
44 *Drainage in Surgery. James E. Moore.
45 London Charities. J. E. Engstad.

42. Gastric Ulcer.—Almost all questions in regard to ulcer of the stomach are in dispute, according to Mayo. The statistics are divergent, and the frequency as reported is very much greater in some countries than in others. The proportion in the sexes is reported variously. Mayo's experience is that large irregular ulcer is more common in adult males, and that seems to be the general observation. Small ulcer, on the other hand, has been more common in women. He divides gastric and duodenal ulcer into four groups: 1. Mucous erosions involving the superficial epithelium; 2, round and fissure ulcers penetrating through the submucous coat, but not involving the muscular and peritoneal coverings except in perforative cases; 3, chronic irregular ulcers involving all the coats and showing evidences of cicatrization in parts; 4, benign obstructions of inflammatory origin. The last group is based on a complication, but can not always be clearly traced to the other known varieties of ulcer. The symptoms of acute perforation and hemorrhage are well known; attacks of pain in case of a duodenal ulcer are often more severe than those of gastric ulcer. Gastric tetany is somewhat rare, but more common than has been thought. As to laboratory methods of diagnosis, excess of hydrochloric acid is the only one that has been found reliable, and this only as corroboratory. Mayo would dilate the stomach, for diagnostic purposes, in cases of pyloric obstruction, simply with air. The tartaric acid and soda method is dangerous. The best practical test for the loss of motility is the findings of remnants of food in the stomach on using the stomach tube before breakfast. The prognosis has been much discussed. The number of cases reported as cured by medical treatment needs some reservations; it is the old story of appendicitis over again, each acute attack a medical cure. The development of cancer on chronic ulcer is a risk, which has of later years become better realized. Atonic dilatation in neurasthenic individuals is mentioned incidentally by Mayo as being sometimes mistaken for organic disease. The indications for the surgical treatment of gastric ulcer are twofold: first, the question of the ulcer itself, and second, the relief of the complicating dilatation, adhesions, etc. Gastro-enterostomy has the widest application, but excision of the ulcer, pylorectomy and pyloroplasty have each a limited field of usefulness, while in hourglass contractions, gastrogastrostomy combined with gastro-enterostomy is necessary to establish a cure. Excision of the ulcer has its disadvantages. He thinks, however, that the radical procedure of Rodman will be indicated in an increasing number of cases, that is, complete excision of the ulcer-bearing area to be followed by independent gastrojejunostomy. This last is the operation of choice, and in Mayo's opinion is best done by the posterior method. All the methods used—Murphy's, the McGraw ligature, Finney's method—he has employed to advantage. In a general way, the anterior method gives a slightly smaller mortality, but a larger percentage of reoperative cases; the posterior method gives the best permanent results, with slightly greater risk. In conclusion, he mentions cancer of the stomach, and remarks that he and his brother have operated on 135 cases in which 34 were radical extirpations. Of the 28 who recovered, the average length of life was over a year. He thinks that in a few years cancer of the stomach will give as good results after excision as breast operations.

44. Drainage in Surgery.—Moore speaks of cases where drainage is necessary, especially in abdominal surgery. Pelvic surgery rarely requires drainage, but when needed, it is best carried out through the vagina. Gauze is the material of choice, except when there is a large accumulation of pus, and a rubber tube may occasionally be required. In operations for appendicitis during the attrack, drainage is always necessary except in the very early stages. He insists on the importance of covering the gauze drain with rubber tissue to avoid adhesions. Many patients have been infected from points where adherent gauze had been removed. He is still in doubt as to drainage in appendicitis in the borderland between the early and late period, where there is a cloudy serum almost indistinguishable from pus and abundant evidence of inflammation outside the appendix. Some surgeons advocate thorough cleansing and closure without drainage in these cases. Moore still employs the cigarette drain, for he has seen patients die from the lack of it. Drainage is necessary in cholecystostomy, and in cholecystectomy he feels safer to use a cigarette drain because the conditions are not so favorable to healing as in chronic appendicitis where he never drains.

Cleveland Medical Journal.

February.

46 *Same as 42 above.
47 *The Importance of the Etiologic Factor in the Treatment of Cystitis. William E. Lower.
48 Some Anomalous Cases of Gastric Disease. John Dudley Dunham.
49 *The Association of Disease of the Tube and Ovary with Appendicitis. Robert H. Sunkle.

46. See abstract 42 above.

47. Cystitis.—Lower finds that the causes of cystitis are multiple, and the treatment depends on the cause. The steel sound is of little use as a diagnostic measure in bladder diseases. The cystoscope is the most reliable.

49. Appendicitis and Adnexal Diseases.—Sunkle reports three cases illustrating the importance of careful examination of the vermiform appendix in all operations involving the tubes and ovaries. The removal of the diseased appendix gives the best chance for complete recovery, saves suffering and further risk and the possibility of future operation. It is not enough to break up the adhesions around the appendix as they may set up disease later. He believes the day is approaching when the appendix will be removed as a routine prophylactic measure whenever the abdomen is opened for any cause.

Annals of Surgery, Philadelphia.

February.

50 *Treatment by Direct Dilatation of Cicatricial Esophageal Stricture. Joseph R. Eastman.
51 *Diverticula of the Esophagus. With the Report of a Case. [illegible]
52 *Or[illegible] Report of a Case in which a Foreign [illegible] from the Right Lower Lobe of a Lung Through a Bronchoscope. Arnold Schwyzer.
53 *The Mixed Tumors of the Salivary Glands. (Continued.) Francis C. Wood.
54 Operative Removal of a Tumor of the Liver. Report of a Case of Resection of the Liver for Gumma; Cholecystectomy. Herm[illegible]
55 *The Aponeuros[illegible] tructures of the Abdominal Wall; Their [illegible] the Prevention and Cure of Hernia. [illegible]
56 Fibrinous Vesi[illegible] Report of a Case in which Two Large Fibrinous Concretions Were Removed from the Urinary Bladder. John W. Elliot.
57 Partial Enterocele. Lucius W. Hotchkiss.
58 Perforation of the Urinary Bladder by an Appendiceal Abscess. I. S. Stone.

50. Stricture of the Esophagus.—The condition of stricture of the esophagus is dealt with by Eastman, who advocates the use of a flexible, hollow, spiral wound wire bougie with a thin lead core for progressive dilatation. He illustrates the instrument and its method of use. He finds that by this method of gradual dilatation many cases can be cured. The swallowing of weak cocain or adrenal solution will usually facilitate the introduction of any esophageal sound, relieve nausea and prevent peristaltic efforts which may interfere with the passage of the sound. He finds it more advantageous to enter the esophagus with the head of the patient tilted forward instead of backward, as the tissues of the neck are more relaxed in the latter position. Not every variety of esophageal stricture is amenable to this method of treatment, but he thinks it is doubtful whether the sound is not useful at some time in every case of cicatricial stricture.

51. Diverticula of the Esophagus.—Halstead gives a full account of esophageal diverticula, classifying them according to their origin as to traction and pressure and traction-pressure forms, and by their situation, as those at the pharynx, those at the pharyngo-esophageal junction, the border-line cases; those occurring near the middle third of the esophagus, the epibronchial group of Leutgert, and the deep-seated diverticula in which the origin is below the level of the left bronchus, the so-called epiphrenal diverticula. The first group are mostly found on the lateral wall of the pharynx, rarely posterior. Most of the lateral ones are congenital, probably originating from the remains of the third and fourth branchial clefts. Congenital stenosis of the esophagus may be the cause of diverticula, as also trauma and excessive pressure within the pharynx. The symptoms of lateral pharyngeal are on the whole similar to those of pulsion diverticula of the esophagus. Pharyngo-esophageal pulsion diverticula are the most common. They develop exclusively in the median line posteriorly. The etiology of many of these is not clear. Their point of origin is just below the inferior constrictor, the point of least resistance in the muscle fibers. A number of illustrative cases are referred to, as well as those at other localities in the esophagus. The symptoms are usually those of gradually increasing stenosis, generally in later life. The pressure symptoms of an overloaded diverticulum are often prominent; pain after eating, interference with respiration, of the nervous apparatus adjoining, etc. The diagnosis is based mostly on the clinical history, the subjective symptoms and the evidence obtained from the use of a sound. The skiagraph may be sometimes used to advantage by filling the diverticulum with bismuth mixture or by introducing a metal sound or rubber tube filled with shot. In high up cases the esophagoscope is of use. Rumpel's method of using two stomach tubes is also noted. Palliative treatment consists in the persistent use of the sound and stomach tube; the palliative operation of gastrostomy is indicated only when radical measures are impossible. The radical operation consists in removal of the sac, and he reports a case in which this was done, using a purse-string suture of catgut around the neck with the sound in the sac. The sound was then withdrawn and the sac inverted, and at the same time invaginated into the lumen of the esophagus. The purse-string suture was then tied and three sutures of catgut were passed through the neck of the inverted sac. The result was good. His patient was a man of 76, and the diverticulum was reached through an incision from the angle of the jaw to the sternoclavicular articulation.

52. Bronchoscopy.—Schwyzer describes the bronchoscope of Killian and the technic of its use, reporting instructive cases. The illustrations show how far the bronchoscope and forceps were inserted into the bronchus. He thinks the method a splendid help in some cases of foreign bodies.

53. Mixed Tumors of the Salivary Glands.—Wood finishes his paper in this issue. His conclusions are given as follows:

1. There is a group of extremely complicated tumors occurring in the facial region which contain elements from both epi- and meso-blast in most intimate relation to each other. 2. The complicated structure of the stroma, containing as it does elements such as embryonic connective tissue, cartilage, bone, fat and lymphoid tissue, and very rarely striated muscle, is explained most

easily by the assumption of an embryonic misplacement of mesoblast. 3. The structure of the parenchyma is so slightly characteristic in morphology that its epithelial nature in all cases can only be considered as probable; yet in about 24 per cent. of the tumors examined the presence of epithelium is undoubted. The form and relationships of the cells of the parenchyma do not furnish sufficient data to justify these cells being regarded as of endothelial origin. 4. The theory of early embryonic displacement of epiblastic tissue during the process of formation of the parotid and submaxillary glands and the branchial arches may account for many of the morphologic peculiarities of the cells of these tumors, especially the lack of many typical features which we associate with epithelium. The same condition may be seen in the epithelial cells of the congenital moles, in which the epithelium is with difficulty distinguished from connective-tissue cells, owing to its close connection with the stroma of the tumors and its undifferentiated type. 5. The mixed tumors of the salivary glands run a clinical course. strikingly different from th inomata, in that they are slow growing and be regional lymph nodes are not invaded, and to remain local in a considerable proportion

The paper ends with an apparently complete bibliography since 1896.

55. **Abdominal Aponeuroses.**—The important conclusions deduced by Winslow are that the aponeurosis coverings are the chief supporting structures of the abdominal wall; that their approximation by overlapping, in doubling the strength of the aponeurotic layers, doubles the strength of the abdominal incision. This being so, and the overlapping method proving the best method of curing abdominal hernia, it follows that as prevention is better than cure, it is wise to prevent hernia by applying this principle in closing all abdominal incisions. He illustrates the technic.

Annals of Ophthalmology, St. Louis.

January.

59 *Sympathetic Ophthalmia. A. Maitland Ramsay.
60 *The Visual Requirements of Engine Men, Based on Personal Observations from an Engine Cab. H. B. Young.
61 *Influence of Resection of the Cervical Sympathetic Ganglia in Glaucoma. William H. Wilder.
62 Arteriosclerosis and Its Bearing on Certain Lesions of the Retina and Optic Nerve. Charles S. Bull.
63 A Case of Microphthalmos with Orbital Cysts. William Zentmayer. Histologic Study by Harold G. Goldberg.
64 *Blastomycosis of the Ocular Structures, Especially of the Eyelids. Casey A. Wood.

59. **Sympathetic Ophthalmia.**—The pathology and etiology of sympathetic ophthalmia are discussed by Ramsay, who considers that the infection travels by way of the blood stream rather than by the nerves. As regards treatment, he thinks to be most effective it should be prophylactic, and much depends on the manner by which the injured eye has been treated immediately after the accident. In some cases enucleation is unavoidable, and he lays down the following rules: 1. Enucleate at once if the injury is so severe that the exciting eye is destroyed from the beginning. 2. Enucleate at once on the slightest sign of sympathetic irritation if the vision of the exciting eye only equals a perception of light and darkness. 3. Enucleate at once if a foreign body is present and can not be removed from the exciting eye. 4. Enucleate at once when the injured eye is blind and suffering from recurrent acute inflammatory attacks, or when it is tender and irritable as a result of degenerative changes, such as ossification of the choroid. 5. Do *not* enucleate when sympathetic inflammation is in progress and there is still sight in the injured eye, as removal of the exciting eye will then give no benefit, and the probability is that in the end all the sight left will be in the injured eye. He does not favor the substitutes for enucleation that have been suggested, and insists on no operation until all the acute symptoms have subsided. In the beginning we must trust to the ordinary treatment of iridocyclitis. Mercury is the one drug to be relied on, however administered. Its action is intensified by iodid of potassium, which may be given in 10 or 20 grains once a day after meals. The general health must also be attended to. The most that can be hoped for in these cases is that the active symptoms will subside, though in a few cases recovery will follow. If after a year or eighteen months there has been no recurrence of the inflammation and the tension is not diminished and the patient's perception of light is satisfactory, operative interference may be considered, but the iris should be left alone as much as possible. The cataractous lens in these cases should be gotten rid of, and it should be remembered that the vitreous is quite fluid and escapes readily, so the incision should be small. After the operation the eye should be kept bandaged in a dark room, local application of ice used and sedatives internally.

60. **Vision of Railway Men.**—Young has personally investigated the conditions of vision of locomotive engineers and discusses the conditions. He finds some rather paradoxical facts. A lower grade of vision may give better recognition of railway signals than a perfect one. The twinkling, unsteady effect of the effulgent rays, which is exaggerated by the motion of the engine, is in part lost. For semaphore perception the signals ought to be visible for a quarter of a mile, and if the machinery for stopping the train is all right, this ought to be sufficient. The weather, fog, rain and snow produce unfavorable conditions. In snow the brighter the headlight the worse the condition. He thinks that if a smaller parabolic reflector were used, or the light stopped down to a pencil ray through a diaphragm, much of the cloud from reflections from the snow crystals would be dispelled. He favors the use of glasses, holding that if they are prohibited the life of engineers as such will be so short that men will hardly think it worth while to serve the apprenticeship. Examination methods should be as much on the ground as possible, in the yards and along the lines. Tests under unfamiliar conditions should not be given too much prominence. The mental perception of the individual has much to do with the findings. Some persons with perfect vision may be slower in perception than others, and consequently seem more defective. In apprentices normal vision should be required.

61.—See The Journal of February 6, p. 350.

64. **Blastomycosis of the Eye.**—A number of cases are reported from various sources by Wood, who reviews the literature. He remarks that the diagnosis from carcinoma, tuberculosis and epithelioma may sometimes be a little difficult. It is quite possible that a blastomycetic tumor might be mistaken for a syphiloderm. Its comparatively rapid progress, its soft spongy walls, absence of glandular involvement, etc., are, however, usually sufficiently characteristic, and immediate diagnosis may be made by microscopic examination. For treatment, incision with thorough curetting under anesthesia is best. It may be followed by the *x*-rays and the administration of potassium iodid in gradually increasing doses up to 150 grains, as first practiced by Dr. Bevan and later by Drs. Hyde and Montgomery. Some cases will recover without surgical intervention. When it is refused, the dose of potassium or sodium iodid should be continued for three or four months. Local applications are not of much use. He gives the particulars of 6 published and 2 unpublished cases, in addition to one in his own practice.

Journal of Nervous and Mental Disease, New York.

February.

65 Case of Chronic Internal Hydrocephalus in a Youth. E. E. Southard and W. F. Roberts.
66 *Senile Dementia; a Clinical Study of 200 Cases with Particular Regard to Types of the Disease. William Pickett.
67 Case of Alexia. Philip Zenner.
68 *Reflexes in Long Distance Runners. A Study of the Influence of Fatigue on Certain Reflexes. Philip Coomes Knapp and John J. Thomas.

66. **Senile Dementia.**—Pickett holds senile dementia is a sort of specific entity, the essence of which is a quantitative change—a mental loss; but the more obvious change is frequently qualitative—excitement, depression and delusion simulating one of the pure insanities. The mental loss, he thinks, is the source and spring of the entire disease. He analyzes a number of cases of the different types of this condition which he considers in legal medicine one of the most important forms of insanity.

68. **Reflexes in Long-Distance Runners.**—Knapp and Thomas have studied the reflexes in the competitors in the Marathon run in Boston. The striking points were the proportion of exaggerated reflexes in the knee and "patellar twitch," in the candidates before the run, and the more or less complete abolition of the same after the performance. The explanation of the increase of plantar reflexes is simple, the increased sensibility of the sole from pounding on a hard road. The diminution of tendon reflexes is not so easy. Exhaustion, as a rule, was not so great as might have been expected, and the most

exhausted cases were not always those which showed the greatest changes. Nevertheless the theory of exhaustion of the reflex centers of the cord seems the most plausible explanation.

Ophthalmic Record, Chicago.

January.

69 *Conical Cornea—An Historical Review, Together with a New Non-operative Method of Treatment. L. Webster Fox.
70 Simple Glaucoma in the Young, with a Report of Two Cases. C. A. Veasey and E. A. Shumway.
71 Ophthalmic Memoranda. G. E. de Schweinitz.

69. **Conical Cornea.**—Fox's article is largely a historical review of the literature and the methods of treatment. He notices particularly Nottingham's work with the use of an artificial iris, and is able to report one case in which elaborating the methods of that author he has been able to produce almost normal vision.

Quarterly Journal of Inebriety, Hartford, Conn.

January.

72 *Alcohol in Relation to Mental Disorders. Theo. B. Hyslop.
73 The Psychology of the Inebriate Mother. T. Claye Shaw.
74 *The Bearing of Alcoholic Stimulants in Medical Selection for Life Insurance. A. B. Bisbee.
75 *Tea Inebriety Among Children. Matthias Nicoll, Jr.

72. **Alcohol in Mental Diseases.**—Hyslop discusses the effects of alcohol on the nervous system, especially calling attention to the question of alcohol as a cause of paresis. He does not consider it as more than an exciting cause of this disorder, which he believes to be the result of syphilis in most cases.

74. **Alcohol and Life Insurance.**—Bisbee classifies all applicants for insurance as follows: The man who is and always has been a total abstainer; 2, the man, a total abstainer at the present, who has been a drinker; 3, the moderate drinker; 4, the man who is ordinarily temperate, but two or three times a year on special occasions gets intoxicated; 5, the man who has violent outbreaks of intemperance lasting a few days or weeks and is temperate in the interval; and 6, the chronic, steady drinker to excess. The last three classes can be ruled out; there is no place in insurance at the ordinary rates for them. He divides the moderate drinkers into the really moderate drinker and the immoderate moderate drinker. The second of these is the most important. They are generally sober in appearance, and respected men in society, never get drunk, but take more or less liquor at different times during the day, more than they realize or their friends suspect. Their systems are constantly charged with alcohol, which is sure to cause irreparable damage sooner or later. This is the most dangerous class for any company to write. The line of demarcation between them and the really moderate drinker is hard to define; each case must be studied on its own merits, and a decision can be reached only after considering carefully each individual case. Many intemperate men will receive policies in spite of the greatest care; it is impossible always to ascertain the facts. As regards those in the liquor trade he would favor the wholesale rather than the retail dealers, but liquor dealers as a class are not good subjects for life insurance. Any man connected with the liquor trade should be considered uninsurable at the ordinary rates unless it can be proved that his habits are beyond reproach. The only remaining class is the reformed drinkers, and he thinks the only safe working rule is to regard these as unacceptable unless their reform is of at least five years' standing, and it can be shown by trustworthy evidence that they are total abstainers, that the reform took place before the age of forty, and searching medical examination shows that the constitution has not been appreciably injured by past dissipation.

75. **Tea Inebriety in Children.**—Nicoll calls attention to the habit among the poorer classes of dosing children with tea to an extent hardly imagined by those who are not acquainted with the facts. It is often given as a substitute for milk. Its effects are disastrous and its remedy lies in the education of the parents.

St. Louis Courier of Medicine.

February.

76 *Some Observations and Suggestions Concerning Therapeutics in Infancy and Childhood. E. W. Saunders.
77 Burns: Prognosis and Treatment. Laura H. Branson.

76. **Therapeutics in Infancy and Childhood.**—Aside from the difficulty of administering medicines, the therapeutics of childhood is very satisfactory. The child can not mislead, but a thorough understanding of the physical signs and symptoms is necessary. Saunders remarks that the giving of water to infants in hot weather and in fever is neglected, ~~and that in many ways the child is mishandled through ignorance.~~ He has a high opinion of hydrotherapy in infant therapeutics, especially the spray bath, which he prefers to other forms for the elimination of heat. Rest is also a matter of importance in the treatment of children. Inhalations are not used as much as they might be, as, for example, the use of vapor from lime water for catarrhal affections. As for drugs, he follows Young's rule except for some drugs, such as chloral, quinin, calomel, digitalis and pilocarpin, of which he gives larger doses, and heroin and morphin and the like, of which he gives less or bases his calculation on the minimum adult dose. At one year of age one-twelfth of the adult dose is given. On the basis of a child doubling its weight in the first six months and trebling it in a year, he gives at six months two-thirds of one-twelfth or one-eighteenth, and for still younger children one-third of one-twelfth or one-thirty-sixth. In case of chloral, however, he has frequently given 2 grains at three months, with frequent repetitions. Another drug in which he exceeds the rule is antipyrin, giving 1 grain at six months without hesitancy. It should not be continued long. As eliminants he mentions pilocarpin, which should be given early. It will not have its best effect in high temperatures, which should be first reduced, and it should also be avoided in case of weak heart or embarrassment of respiration. Among the antipyretics he specially mentions the external application of guaiacol, which is a ready means of reducing the temperature in many conditions, and also appears to have an analgesic effect. Other drugs mentioned are phenacetin, camphor and veratrum viride in sthenic fevers, one-fourth to one drop, diluted, every half hour. Among the specifics he first mentions quinin, which is sometimes difficult to give to children. In severe or inveterate malarial infection, Fowler's solution, with antipyrin hypodermatically, has proved effective. He also speaks of argyrol in ophthalmia neonatorum, and adrenalin in hemorrhages, and guaiacol carbonate in catarrhal conditions of the upper air passages, and as an intestinal antiseptic. Serum treatment is briefly mentioned. The practice of vaccinating with vaccine virus in whooping cough, in patients not before vaccinated, is, he thinks, a useful measure in some cases. With the advent of vaccinia the symptoms of pertussis often abate.

Indiana Medical Journal, Indianapolis.

February.

78 Indiana Health and Medical Laws; Legislation That Is Still Needed. William L. Taylor.
79 *Ultra Visible Life. Frederick G. Novy.
80 Historical Sketch of the City Hospital. G. V. Woollen.
81 Public Hospital as an Institution for Investigation and Instruction. Lehman H. Dunning.
82 The Hospital as an Institution for Investigation and Instruction. Louis Burckhardt.
83 Report on Tuberculosis Exposition Held Under the Auspices of the Tuberculosis Commission of Maryland in Baltimore. John N. Hurty.

79. **Ultra-Visible Life.**—Novy reviews the infections of which the germs have not yet been detected, and which are beyond the reach of our optical apparatus. One-fifth of a micron is at present about the limit, or 1/125,000 of an inch. Evidence that still further divided material endowed with life may exist is shown by the facts of certain diseases, such as the so-called mosaic disease of the leaves of the tobacco plant, rabies, yellow fever, horse sickness of South Africa, rinderpest, sheep-pox, molluscum contagiosum of birds, the germs of which all pass through the Berkefeld filter. He says we know at the present time of at least ten diseases in which the cause falls within the group of filterable organisms. The question presents itself: "Is it a small stage of an otherwise large organism which passes through, or is the cause filterable in all its stages of development? In the latter case we are clearly dealing with an ultravisible organism, unless indeed the virus should chance to be

dialyzable, in which event we would have the as yet purely hypothetical form of 'soluble life.'" The existence of a minute stage of some organism is illustrated by the trypanosoma of rats, which has a length of seven or eight times that of the diameter of the red blood cell, but a very minute form was produced in artificial culture and the material passed through a Berkefeld filter, and the filtrate reproduced the typical disease with ordinary large forms. He remarks on the difficulty of cultivating protozoa. Bacteria, like weeds, grow anywhere, but protozoa are exceedingly susceptible to their surroundings and changes in osmotic pressure cause them to disappear or undergo marked alteration.

University of Pennsylvania Medical Bulletin, Philadelphia.

January.

84 *The Specificity of Tissue Coagulins, Especially of Invertebrates. Leo Loeb.
85 Case of Extensive Arteriosclerosis Simulating Aneurism of the Arch of the Aorta. John M. Swan.
86 Concerning the Fothergill Pictures at the Pennsylvania Hospital. J. A. Scott.
87 Military Services of the First Faculty of the University of Pennsylvania. Francis R. Packard.
88 Oration Delivered by Dr. W. P. C. Barton in 1821. With Explanatory Note. William Pepper.

84. **Specific Coagulins.**—Loeb describes the specific character of tissue coagulins, each being effective on its own species and to a less extent or not at all in others. He considers that we have a fact of wide significance in this specificity. It does not, of course, apply to all ferment actions, especially not to the common hydrolytic ferments of the digestive organs. Nothing can be said as to the mode of origin of these specific substances. He suggests, however, that they may originate as do the experimentally produced antitoxins and agglutinins, by a kind of autoimmunization, a certain fibrinogen producing a specific coagulin. These specific coagulins seem to be specially adapted to protecting the individual by preventing hemorrhage in so far as just the kind of muscle with which the blood comes in contact in flowing through the wound has a specific influence on the blood, accelerating its coagulation. The specific action is also of interest in the matter of thrombosis, as thrombosis is known to follow injury of the blood vessel wall.

New Yorker medicinische Monatschrift.

January.

89 Succorrhea and Tetany in Case of Chronic Gastric Ulcer. J. Kaufmann.—Bemerkungen über magensaftfluss und tetanische Anfälle beim chronischen Magengeschwür.
90 Suppuration in Female Pelvis. J. A. Schmitt.—Elterungen innerhalb des weiblichen Beckens.

Alabama Medical Journal, Birmingham.

February.

91 Everyday Preventive Medicine. S. C. Carson.
92 Report of Major Operations at St. Vincent's Hospital. E. M. Robinson.
93 Typhoid Fever. J. S. Winters.
94 Memorial Address on Dr. W. E. B. Davis. Richard Douglass.

Oklahoma Medical News-Journal, Oklahoma City.

February.

95 Malarial Fevers as Seen by the Eye of the General Practitioner. Ira B. Bartle.

Journal of Medicine and Science, Portland, Maine.

February.

96 Quarantine. P. C. Kalloch.

Medical Mirror, St. Louis.

January.

97 Fractures of the Skull. With Report of Clinical Cases. William E. Fitch.
98 The Specialist by Evolution and the Specialist by Premature Selection. Charles M. Hughes.
99 Betul-ol vs. Salicylate of Methyl. Gus Foullon.
100 Two Specimens Showing Results of Anterior Gastro-enterostomy Made with Suture After the Method of Kocher with the Ligature of McGraw. John Y. Brown.

Dominion Medical Monthly, Toronto.

February.

101 Pulmonary Embolism. R. Eden Walker.
102 Abdominal Contusions. A. E. Bolton.
103 Deductions from the Study of Pelvic Diseases in the Female Insane. Ernest A. Hall.
104 Extrauterine Pregnancy. F. W. Hall.
105 Perineal Prostatectomy. Robert Telford.

Detroit Medical Journal.

February.

106 The Relation of Surgical Pathology to Surgical Diagnosis. Joseph C. Bloodgood.

Old Dominion Journal, Richmond, Va.

February.

107 The Treatment of Puerperal Sepsis. Daniel J. Coleman.
108 Lobar Pneumonia. A. L. Baptist.
109 Treatment of Hip-joint Disease. William P. Mathews.
110 Address, Southern Medical College Association. Christopher Tompkins.
111 Some Observations on the Movability of the Apex of the Heart. W. J. Pettus.

Colorado Medical Journal, Denver.

December.

112 Double Monsters. A Brief Consideration of Their Cause, Characteristics, Diagnosis, Prognosis and Treatment, and a Report of Two Cases. T. Mitchell Burns.
113 The Treatment of Trachoma. G. L. Strader.

FOREIGN.

Titles marked with an asterisk (*) are abstracted below. Clinical lectures, single case reports and trials of new drugs and artificial foods are omitted unless of exceptional general interest.

British Medical Journal, London.

February 20.

1 *Hour-glass Stomach. Berkeley G. A. Moynihan.
2 *Congenital Narrowness of the Pyloric Orifice a Cause of Chronic Gastric Disease in the Adult. A. Ernest Maylard.
3 *The Subsequent History of Eighteen Patients on Whom Gastric Operations Had Been Performed. C. Mansell Moullin.
4 Five Consecutive Cases of Perforated Gastric Ulcer Treated by Excision. Sinclair White.
5 *Aseptic Surgery in Theory and Practice. Charles B. Lockwood.
6 *The Treatment of Appendix Abscess in the Recto-vesical Pouch.. Edmund Owen.
7 The Diminishing Birth-rate and What Is Involved by It, Being an Abstract of the Inaugural Address Delivered Before the British Gynecological Society. J. W. Taylor.

1. **Hour-Glass Stomach.**—Moynihan holds that every case of hour-glass stomach is due to ulceration, entirely rejecting the idea that it may be congenital. There may be perigastric adhesions due to ulceration or gallstone disease; chronic ulceration may produce it through adhesions or through contraction induration in its healing, and Moynihan thinks that spasmodic contraction may have considerable influence. The principal aids to diagnosis are in washing out the stomach and its inflation with gas. The two signs of Ewald are of little importance. A number of cases are reported illustrating the condition. As regards treatment, it is purely operative, though in many cases no single operation will suffice. In the cases reported gastroplasty was done alone in 5, gastro-enterostomy alone in 4, gastroplasty and gastro-enterostomy in 2, gastrogastrostomy alone in 1, and gastrogastrostomy and gastroenterostomy in 2. Both parts of the stomach will have to be relieved by operation.

2. **Congenital Narrowness of the Pyloric Orifice.**—In a number of chronic gastric derangements Maylard has found what seems to him evidence to indicate that a congenital condition of the pyloric orifice was the cause of the disorder. He sums up his remarks by saying:

> 1. There exists a large class of patients in young adult life who owe their chronic gastric trouble to a congenital narrowness of the pyloric orifice. 2. This narrowness is due in many cases to an undue development of the pyloric valve lessening the caliber of the orifice to anything between the normal of 12 to 15 mm., and 2 or 3 mm. 3. The proper treatment is gastrojejunostomy performed with due regard to the normal disposition of the parts after operation.

3. **The Postoperative History of Gastric Cases.**—Moullin has obtained the record of 18 cases which had been operated on for ulcer and carcinoma, and finds points that seem worthy of attention. One of them is concerned with hemorrhage from what are called erosive gastric ulcerations or what he thinks are better described as recurrences. There is no difficulty in arresting the bleeding. The erosion or ulceration may be ligated or it may be excised, and he thinks this has saved life in some cases. He has seen this recurrent ulcer follow gastro-enterostomy. He thinks that whatever the pathologic condition may be it is necessary to distinguish these cases from those of chronic ulceration. In the one the operation is only required when the hemorrhage is dangerous to life. In the other hemorrhage is the indication that ulceration is extending, and a different method of treatment is required from that which it has been receiving. Another point is in regard to adhesions: if they are left when gastro-enterostomy is performed there will always be trouble and pain after eating owing to dragging

on the parietal peritoneum. Simple division is of little or no use, they always re-form. The only way to avoid recurrence is to excise that portion of the stomach wall that is attacked, bringing the cut edges together carefully by means of sutures.

5. **Aseptic Surgery.**—This second lecture of Lockwood's treats of skin disinfection. He has for some years used a mixture of alcohol, water and biniodid of mercury, which he finds most satisfactory. He admits that the question of perfect sterilization is still unsettled, but is inclined to think that practical sterilization of the hands can be performed. His method mentioned above has of late given only 3 septic tests in a total of 111. As regards the use of gloves, he admits that the rubber gloves will suffice, but he has found it impossible to avoid tearing them in operating, and they decidedly dull the sense of touch. If some one could invent gloves which could be sterilized by heat and which would not tear or impair the sense of touch, there would be no objection whatever to their use. The disinfection of the patient's skin is a more difficult matter than that of the surgeon's hands and depends on the region. He would give the regions in their order of most certain disinfection as possible: 1. The limbs; 2, the abdomen; 3, the breast; 4, the neck; 5, the back; 6, the groin and axilla; 7, the scrotum, and 8, the scalp, which is the most difficult. Perhaps when more stringent tests are used the skin will be found septic more frequent than it has been. He makes the remark that wounds in the extremities heal better at a distance from the groin and axilla than nearer to those localities. The methods of skin sterilization, however, are still far from perfect. For buried sutures he thinks there is no better material than twisted silk, and that the peritoneum tolerates them better than any other tissue; the tendons, aponeurosis, ligament nerves and fibrous tissue come next. The muscular tissue is the most intolerant. Carbolic acid silk has a decidedly irritating effect on the skin. A great deal depends on the way the silk is tied. Sterile silk sutures tied tightly in the peritoneum will be tolerated, but this is not the case with muscular tissue. For septic wounds he invariably uses catgut, and it is invaluable for operations about the rectum and perineum. It is also best to use it when the wound is supposed to be tuberculous, and it is advisable to use catgut for the control of hemorrhage in all septic wounds. The difficulty is in making catgut itself absolutely aseptic. As regards silver wire, as recommended by Bloodgood, he has found difficulty in the mechanical irritation which it produces. No matter what trouble was taken to cut the ends of the wire short and turn them down, they altered their position and caused pain. Silver foil, he thinks, is the ideal substance for the exclusion of air and protecting the wounds from gauze. He has continued to use it in conjunction with silk and has been gratified with the results. He favors the use of sponges when they can be made sterile. When a sponge has touched anything infective it should at once be discarded.

6. **Appendix-Abscess in the Rectovesical Pouch.**—The advice given to drain abscess in the rectovesical pouch through the vagina or rectum is criticised by Owen, who maintains that abdominal section in these cases is decidedly the best. There are two serious objections to opening appendiceal abscess through the vagina or rectum; one is that the operator can not tell what he is doing and is operating in the dark, and the second is that the operation may be followed by fecal fistula, which absolutely refuses to close. Another strong point for the abdominal route is the possibility of removing the appendix. He holds that when a person has had one unmistakable attack of appendicitis the appendix had better be resected as soon as the inflammation has quieted down. This is in the line of prophylactic treatment of intrapelvic abscess.

The Lancet, London.

February 20.

8 *The After-effects of Head Injuries. T. Crisp English.
9 The Psychic Side of Therapeutics. J. F. Woods.
10 The Diminishing Birth-rate and What Is Involved by It. John W. Taylor.
11 *The Use of Antistreptococcic Serum in the Treatment of Scarlet Fever and of Diphtheria. F. Percival Mackie.
12 Notes on a Case of Backward Dislocation of the Head of the Humerus Caused by Muscular Action. C. W. Mansell Moullin.
13 Seventy Cases of Lobar Pneumonia; an Analysis of the Clinical Features and Postmortem Changes. F. S. Dawe and E. C. Austin.
14 *Cancer in Australia: A Comparison with Other Countries, Together with a Specific Treatment for the Prevention and Arrest of the Disease. (Concluded.) G. Cooke Adams.
15 Cecal Concretions. Alexander Forsyth.
16 Notes on the Etiology of Lupus and on Cases Treated by the X-rays and Finsen Light. Frank H. Jacob.

8. **Head Injuries.**—Head injuries are common, but very little attention has been paid to their remote consequences. English has collected the notes of 300 patients whose condition was studied some time after injury. The interval between the accidents and the time of investigation varied from one to twenty years. He classifies them under three heads: 1. Those with no effects; 2, those with slight effects; 3, those with marked effects. Under these heads he was able to classify 200 out of the 300 patients, while the remaining 100 were miscellaneous and could not be thus classified. The 200 were studied in two series of 100 each, and slight or marked effects occurred in 69 per cent. of the first series of 100, and 52 per cent. of the second. Twelve patients died, and in only one of these was the death directly due to the head injury, the patient having been in an asylum for six years. In another case it is possible that death was ultimately caused, but the actual cause could not be ascertained. When last seen the patient was suffering from a severe traumatic epilepsy and mental impairment. It was found that the majority of cases that submitted to a necessary period of mental rest after the injury became well. The reason why so many did not is that the treatment was too short. Owing to the inadequate mental rest, recovery is frequently incomplete after skull fracture, so that there is some element of truth in the popular notion that a man is never the same after a head injury. Miscellaneous cases include mild forms of concussion when there is only temporary loss of consciousness. Grave consequences are more likely to occur from these owing to the neglect of any treatment whatever. The effect on the working capacity was specially studied, and in 86 fracture cases information was obtained. Fifty were able to do the same work as before; 15 were doing lighter work; 7 could do very little, and 6 were totally disabled. In 78 cases where there was no apparent fracture, 51 were working as well as before; 12 were a little impaired in their capacity; 6 were doing lighter work; 4 could do but little; 2 had given up their trade, and three were totally disabled. The form of occupation, of course, has its influence and the greater the responsibility and co-ordination, etc., the greater the difficulty. The beneficial effects of head injuries, English says, are almost entirely confined to the imagination of novelists, but he reports a case in which a fall on the head seemed to have a beneficial effect in chorea. He finds that injurious effects are most likely to result during two periods, early life and old age. In children the higher intellectual faculties are being developed and his experience has not borne out the statement that children recover remarkably well from head injuries. In the aged the powers of recuperation are unequal to meet the conditions. He discusses the symptoms, especially traumatic headache, which is commonly observed; also painful or tender scars, vertigo, changes of disposition, especially irritability, which is a common symptom, the inability for mental and physical exertion, disturbed sleep, and an increased susceptibility to the influence of alcohol, which was observed in all cases. Another symptom is the inability to stand high temperature, which is common after head injuries.

11. **Antistreptococcic Serum in Scarlet Fever, Etc.**—Mackie's conclusions are the following:

> Antistreptococcic serum is of distinct value in a certain number of cases of scarlet fever, particularly in those where the throat lesion is severe and toxemia is going on. 2. Bacteriologic examination will give no sure guide as to the cases in which the serum will be beneficial, therefore it is advisable to give the serum early and to make the bacteriologic examination afterward. 3. The serum ought to be given early in the disease, just as in diphtheria. The longer the disease has lasted before the serum is used the less likelihood is there that it will be beneficial. Antistreptococcic serum is too often brought in with the strychnin and oxygen when it is unreasonable to expect it to do good. 4. If the first dose or two have no effect on the temperature its continuation will probably not be of any value. 5. The serum is liable to produce urticario erythematous rashes. 6. Even in those cases in which it does no good there is no evidence to show that it does harm.

The use of the compound sera in diphtheria was tested in 5 cases; 3, however, were almost moribund; 1 died from heart failure in convalescence and 1 recovered almost miraculously, and Mackie is of the opinion that in all cases of diphtheria where there is evidence of streptococcic infection antistreptococcic serum should be given with some reasonable hope that it may do good.

14. **Cancer in Australia.**—Adams' conclusions from the whole study are as follows:

1. Cancer is not due to a bacterial or parasitic origin. 2. Cancer is a constitutional disease due to a specific or malignant virus originating in the blood and chiefly manifesting itself after 35 years of age, and at its greatest virulence between 50 and 70 years of age. 3. Malignant disease may be congenital and certain forms acquired by infection or contagion. 4. The principal factor in the cause is hereditary tendency. 5. The principal exciting factor is prolonged local irritation acting on a constitution suffering from an inherited tendency or which has been debilitated through want or treatment of one or other of the following diseases in their order of frequency: syphilis, alcoholism, obesity, rheumatism, gout or tuberculous disease. 6. The principal dietetic factors in the cause are sugar, beer and alcohol. 7. The principal hygienic factors in the cause are woods and forests whose dropping foliage decomposing causes stagnation of water; also badly formed streets and defective drainage in cities; and the overcrowding, badly housed and fed population of cities. 8. Cancer is a preventable disease and the absolute cure is only to be found in the means for preventing its exciting causes and completely removing the same. 9. The sanitary indigenous foliage of the following natural orders: (*a*) *Myrtaceæ*, (*b*) *Lauraceæ*, and (*c*) *Coniferæ*, appears to exert a specific influence in rendering the native born population of the countries where they grow almost immune from malignant diseases other than might be caused by prolonged local irritation (the Australian eucalyptus belonging to the *Myrtaceæ* exerts the greatest influence in this direction). 10. A eucalyptus oil obtained by means of a scientific preparation from various species grown in Australia possesses a specific action in arresting the pathologic progress and process of malignant disease. 11. All internal and local treatment of a poisonous or irritating nature should be absolutely avoided, more particularly such local treatment as the *x*-rays and Finsen's light, as they are likely to set up secondary conditions around the site of lesion. Far better is early and prompt removal when the malignant growth is accessible.

My object in writing this article is to throw some further light on the cause of malignant disease and to bring more prominently before the notice of the profession a remedy which, though known in some degree, is, in my experience, insufficiently known and certainly insufficiently appreciated. And while strongly advocating its more general use in the treatment of wounds and specific fevers, etc., it is in relation to its specific effect as applied to the disease of cancer that I would urge the profession to give it a fair trial.

Intercolonial Medical Journal of Australasia, Melbourne.

January 20.

17 *The Congenital Origin of Hernia. R. Hamilton Russell.
18 A Fatal Case of Cyclic Vomiting. Julian Smith.
19 An Unusual Case of Intestinal Obstruction. Basil Kilvington.
20 *An Attempt to Estimate the Risk of Producing Sympathetic Ophthalmitis by Perforating Injury. James W. Barrett.
21 Fish-bone Extruding Through the Abdomen. W. A. Wood.

17. **Hernia.**—Russell reiterates his former views as to the congenital origin of oblique inguinal hernia, and there being a patent condition of the whole or a portion of the processus vaginalis in these cases. Congenital weakness of the abdominal wall, he thinks, does not exist as a factor, and when it does occur it is acquired from the existence of hernia. The complete removal of the sac done before the abdominal wall has been much weakened is the true curative treatment and the use of a truss, excepting in the case of very young infants, is improper. He now brings forward further evidence in favor of his views and also some presumptive evidence that femoral and direct inguinal hernia may belong in the same category with the oblique variety. He illustrates his paper with schematic diagrams and proposes instead of the use of the term congenital hernia, a substitution of the terms total funicular and partial funicular for those now called congenital and funicular respectively.

20. **Sympathetic Ophthalmitis.**—Barrett reviews the figures of various authorities and concludes that, so far as the evidence goes, the risk of sympathetic ophthalmitis occurring in a case of severe injury with iridocyclitis is certainly not less than 5 per cent. and probably considerably more.

Australasian Medical Gazette, Sydney.

January 20.

22 Gallstones and Their Treatment. G. H. Hopkins
23 Post-operative Hematemesis. W. J. Stewart McKay.
24 Degeneration of Uterine Myomata. Ralph Worrall.
25 A Case of Popliteal Aneurism. H. S Newland.
26 On Loss of Memory. M. McIntyre Sinclair.
27 Ventro-fixation of Uterus. H. W. Bryant.
28 Notes on Three Cases of Acute Suppurative Peritonitis with Successful Operative Interference. H. Roger Cope.

Journal of Tropical Medicine, London.

February 15.

29 Cold Weather Mosquito Notes from the United Provinces—Northwest India. (Continued.) G. M. Giles.
30 Brief Conspectus of the Tropical Diseases Common in the Highlands of West Central Africa. Frederick C. Wellman.
31 Keratitis. Wm. Robertson.

Bulletin de l'Académie de Médecine, Paris.

32 (LXVIII, Nos. 3 and 5.) *Sur le traitement des osteo-arthrites tuberculeuses du genou par l'association combinée de la méthode sclérogène et des injections intra-articulaires. Villemin.
33 Failure of Attempts to Inoculate Alopecia Areata. Jacquet.—Echec de 100 tentatives d'inoculation peladique.
34 (No. 4.) *Névrites optiques périphériques: leur traitement chirurgical. E. Koenig.
35 Traitement des affections des organes respiratoires au moyen d'un appareil d'inhalation thermo-régulateur et gazéificateur. Heryng.

32. **Treatment of Tuberculous Knee Affections with Combined Sclerogenic and Injection Method.**—Lannelongue described in 1891 his method of treating joint affections and hernias by local injection of a solution of chlorid of zinc, as was duly chronicled in The Journal at the time. He called this the "sclerogenic method," and time has confirmed his previous announcements, he says. Of late years he has been combining these injections with intra-articular injection of an oily solution of iodoform and creosote in the proportion of 10 parts iodoform, 2 parts creosote and 40 parts ether to 90 parts olive oil. The patients are cured with surprising rapidity by this combination. In case of a typical "white swelling," he first evacuates the intra-articular effusion by puncture, and then injects about 20 gm. of the iodoform solution, then applies compression and immobilization. A few days to two weeks later, the 10 per cent. zinc chlorid is injected under the periosteum, the needle inserted at various points, the aim being to inject it in the regions containing the blood vessels which supply the synovial membranes and in the fungous lesions along the ligaments. The caustic transforms the fungous tissue, causes sclerosis of the tuberculous tissue, and strangles the colonies of bacilli in a mass of fibrous tissue. It must never be injected into the synovial cavities, as this would cause a violent and useless reaction. Its purpose is to destroy the growing colonies which are always to be found in the parts closest to normal tissue, at the periphery of the spongy growth. The normal tissues which limit the morbid focus are the matrix elaborating constantly the tubercular neoplasm under the influence of the bacillus. By modifying this limiting zone the tuberculous process is walled in, while the iodoform injection kills the germs ensconced in the focus. He calls this combined method the intra-extra-articular, and urges its application in all cases of tuberculous osteo-arthritis of the knee, elbow or wrist, with or without effusion. He thinks that if the vague complaints of children were better heeded, these affections could be diagnosed much earlier, and treatment applied to still better effect in the incipient stages. The technic is described in detail as applied in 3 cases, girls between 11 and 13, with white swellings of long standing, having entailed atrophy of leg muscles. The cure was complete in 2 of the cases in five months, the patients dismissed using the knee freely. The third child is still under treatment. In Lannelongue's service at the Enfants-Malades Hospital this method is now currently applied with most gratifying results.

34. **Surgical Treatment of Peripheral Optic Neuritis.**—Koenig attributes peripheral optic neuritis to some preceding infection, such as la grippe, typhoid fever, gonorrhea, etc. This form is characterized by the absence of vascular stasis and brain disturbances, by the limitation of the edematous infiltration to the optic papilla and by its unilateral development. It is the result of circulatory disturbances limited to the papilla and bulbar end of the optic nerve. As it is impossible to act directly on the posterior pole of the eye, he applies treatment to the anterior pole—knowing the close relationship between the two—and treats the condition by sclerotomy. His experience has been limited but satisfactory with this procedure.

Presse Médicale, Paris.

36 (1. No. 6.) Technique de l'hystérectomie abdominale dans les suppurations annexielles. J. L. Faure.

37 Différence de potentiel. Courant électrique. M. Lermoyez.
38 *A propos de la castration ovarienne dans le cancer du sein. J. Dumont.
39 *Un nouveau procéde pour les instillations aux prostatiques. Melun.
40 (No. 7.) Les nouveaux aspects de la lutte antituberculeuse en Allemagne (in Germany). E. Fuster.
41 Une pendaison à Tunis (a hanging). C. Nicolle.
42 Le chlorure de sodium au point de vue diététique. A. Martinet.
43 (No. 8.) Coeur mobile et cardioptose. E. Barié.
44 *Sur la sérumthérapie de la peste. V. Godinho.
45 L'audition chez les enfants à l'école (in school children). Duhar.
46 *Considérations sur l'anesthésie par l'éther et par le chloroforme. A. Mayor.
47 *Les rayons Blondlot (rayons N). G. Vitoux.
48 Formes des courants électriques. M. Lermoyez.
49 Traitement d'une blessure d'une grosse artère (*of wound of artery*). A. Yvert.

38. **Ovarian Castration in Cancer of the Breast.**—Dumont refers to 4 cases in France in which a mammary cancer subsided after removal of the ovaries. He also cites a large number published in England in which the cancer seemed to be favorably influenced by the castration. On the other hand, no result was apparent in a still larger proportion, and none of the patients was really cured.

39. **Instillations in Case of Hypertrophied Prostate.**—Melun advises to introduce the instillator sound through the larger sound previously inserted into the bladder for lavage of the organ. The introduction is thus rendered much easier and the silver instillations are not painful, as the solution does not come in contact with the urethral sphincter, which is usually very sensitive.

44. **Serum Treatment of the Plague.**—Godinho is superintendent of the isolation hospital at Sao Paulo, Brazil, and states that the antiplague serum made by Dr. Vital Brazil and used there is proving fully as effectual as diphtheria antitoxin in diphtheria. Brazil found that mules bear inoculation with the plague germs much better than horses, and thus uses these animals. Their serum is peculiarly active, and almost invariably cured the bubonic form of the plague in an adult when administered before the third day. It frequently cured as late as after the fourth day, and occasionally after the fifth. The disease is much severer in children. The pneumonic form of the plague is too rapidly fulminating in its course for serum treatment to be effectual. It is also liable to fail in the septicemic form, which Godinho regards as a late form of the previously unrecognized disease. [The Brazilian government was petitioned by the last national medical congress to appropriate funds to defray the expenses of a trip to Europe by Dr. Vital Brazil to demonstrate his method of making serums, especially his serum against snake bites. Some of his results were given in The Journal, xli, page 504.—Ed.]

46. **Ether vs. Chloroform.**—Ether kills by arresting the respiration. The heart continues to beat for a certain length of time, and artificial respiration offers a chance for resuscitation. Chloroform, on the other hand, kills by arresting the heart action. Artificial respiration and other procedures commonly employed in such cases are absolutely ineffectual. The only means of restoring the heart functions are by direct massage of the organ. The results of this massage have not been very encouraging to date, no case being known in which the patient survived more than twenty-four hours after his resuscitation.

47. **The Blondlot Rays—the N Rays.**—These new rays have been mentioned in The Journal recently, page 404. Vitoux describes them in detail, mentioning additional facts in regard to them, such as that certain substances store up these rays and emit them afterward spontaneously. Gold, silver, platinum, zinc, iron, etc., after exposure to the sunshine, to an arc lamp or a kerosene light, which all emit the N rays, absorb them and in turn emit them until the store is exhausted. Molecular compression is peculiarly favorable for the production of these rays. Iron is only a transient source for the rays, but after compression it emits them permanently. Tempered steel is thus a permanent source for the rays. They are subject to polarization, refraction and to the laws of reflection, differing thus from the *x*-rays. It has also been found that sound waves constitute a source for the N rays.

Revue de Chirurgie, Paris.

Last indexed page 493.

50 (XXIV, No. 2.) Un nouveau cas de kyste juxta-intestinal. F. Terrier and P. Lecene.
51 *Des angiomes du sein (of breast). P. Malapert and R. M. Beauchant.
52 Recherches expérimentales sur les fractures limitées du fond de la cavité cotyloide. L. Thévénot.
53 Ulcère perforé de l'estomac. Intervention. Guérison. Considérations sur le drainage dans les peritonites. P. Guibal.

51. **Angioma of Breast.**—The patient in the case reported was a girl of 12. The tumor had been noticed soon after birth, but did not commence to grow until about the sixth year. In the 13 cases on record there was no recurrence after ablation of the breast, which was done as the routine procedure whenever the angioma was not quite superficial. The sexes were about equally represented.

Semaine Médicale, Paris.

54 (XXIV, No. 5.) *La valeur diagnostique et pronostique de la fièvre dans l'appendicite. L. Cheinisse.
55 *Fractures of Radius by Automobile Levers.* Lucas-Championnière.—Fractures causées par la manivelle de mise en marche des moteurs d'automobiles. From society report.

54. **Fever in Appendicitis.**—Cheinisse emphasizes the facts that fever is almost an invariable accompaniment of appendicitis, but it is usually moderate and transient. The gravity of the prognosis increases with the intensity of the fever. When the temperature persists and rises after the fifth day, it denotes the formation of an abscess. The mortality in the cases he has collected averaged 11.5 per cent. in the medical cases with temperature not above 39 C., while it reached 36.3 per cent. in the cases in which there was fever above 40 C. In the surgical cases the mortality reached 35.3 and 75 per cent. The prognosis is dubious also when the pulse rate does not harmonize with the state of the temperature. Another important sign is the difference between the temperature in the axilla and in the rectum when the peritoneum is involved. In case of a suppurative appendicitis, the difference may amount to several degrees. It has been noticed also that the maximum temperature is observed between 9 and 10 p. m. in the severer cases.

Archiv f. Gynäkologie, Berlin.

Last indexed page 207.

56 (LXX, No. 3.) Zur Frage der proliferierenden, aus Lutein-Zellen bestehenden Ovarial-Geschwülste (*tumors*). V. Grouzdew (Kazan).
57 Blasenmole und Eierstock, Beitrag zur Pathologie des Corpus luteum. J. Jaffé.
58 *Ueber Prolaps-Operationen und deren Dauer-Resultate. M. Jacoby (Breslau).
59 *Ueber puerperale Metro-Phlebitis. Grossmann (Dresden).
60 Artificial Premature Delivery with Contracted Pelves. C. Hahl [illegible]che Studie über die künstliche Fruhg[illegible]
61 Zur mec[illegible] des Cervical-Canales und des Muttermundes während der Schwangerschaft und der Geburt. R. de Seigneux (Geneva). New dilator.
62 Zur Physiologie des Blutes Neonatorum in den ersten 10 Lebens-Tagen. E. Sciplades (Ofen-Pest).
63 Prolapse of Placenta Normally Located. F. Kayser.—Ueber Vorfall der Plazenta bei normalen Sitz.
64 *Zur Aeti[illegible] und Therapie der Extra-uterin-[illegible]
65 Morbidit[illegible]cerated Fetus. C. Kothen (Giessen).—Ueber die Morbidität im Wochenbett nach Geburt von mazerierten Früchten.

58. **Remote Results After Prolapse Operations.**—Jacoby reports the late results in 202 out of 257 cases in which some operation was performed for the relief of prolapse of the uterus. The position of the organ was corrected whenever it was found in backward displacement and involved in the prolapse of the vaginal wall. A proportion of 94.5 per cent. were found permanently cured. Better results were attained with the Alexander-Adams operation than with any other method. The number of permanent cures is higher than those reported from Fehling's clinic (76.9 per cent.), Küstner's (69 per cent.), Schauta's (66.6 per cent.), Baumm's (69.3 per cent.) and Zweifel's (33.3 per cent.). Excessive prolapse after the child-bearing age and the irreducible were treated by total extirpation. Prolapse of the posterior vaginal wall, on ground of old laceration of perineum was treated by Asch's method of perineal plastics, which is described in detail. Plastic conservative operations were preferred whenever possible, and each case was treated according to individual conditions without routine rules.

63. Puerperal Metrophlebitis.—During the last four years 105 women were treated at the Friedrichstädter Hospital for puerperal sepsis with death in 54 cases. All but 3 of the latter came to postmortem, and in 14 cases pure thrombophlebitis was found, in 24 pure lymphangitis and in 13 a combination of both. In all the cases of thrombophlebitis, with one exception, besides the hypogastric and uterine veins, still other veins were involved in the process, including the cava in 3 instances. There was only a single case, therefore, in which Trendelenburg's proposed extraperitoneal ligature and resection of the thrombosed vein could have been applied. This one patient was in too debilitated condition for any intervention to be attempted. The pure thrombophlebitis ran a more chronic course, lasting several weeks or months, while in 16 of the 24 cases of pure lymphangitis the patient succumbed in a few days. In the 13 of the associated form death occurred rapidly in 7 and not until after several weeks in 4. In 14 of the 51 fatal cases the birth had been spontaneous; in 9 there had been spontaneous abortion, in 8 forceps delivery and in 11 operative intervention during or after an abortion. In 9 cases the particulars could not be learned.

64. Symptomatology, Etc., of Extrauterine Pregnancy.—This article is based on study of 233 cases observed at the Berlin Charité. In the 73 cases of abortion 36 recovered after operation and 36 under expectant treatment. One patient succumbed, notwithstanding the operative intervention. In the 47 cases of tubal rupture 5 recovered without an operation, and 11 deaths occurred among the 42 operated on. Runge concludes that hematocele, which was noted in 108 of the cases, had better be treated conservatively whenever possible. He ascribes the etiology to pathologic childbed or chronic gonorrhea.

Archiv f. klinische Chirurgie, Berlin.

Last indexed page 685.

66 (LXXII, No. 2.) *Local Anesthesia in Extraction of Teeth. A. Läwen (Leipsic).—Die örtliche Anasthesie bei Zahnextraktion, mit bes. Berücksichtigung der Kokain-Adrenalingemische.
67 *Operations in Nasopharynx. E. Payr (Graz).—Ueber neuren Methoden zur operativen Behandlung der Geschwülste des [illegible] mit bes. Berücksichtigung der Koch-[illegible]beider Oberkiefer.
68 [illegible] in Spinal Curvature. W. Jawin (Mos-[illegible]ler Speiseröhre bei verschiedenen Verkrümmungen der Wirbelsaule.
69 Zur Agglutination der Staphylokokken. Klopstock and Bockenheimer (Berlin).
70. Ueber eine Prothese für einen Teil des Oesophagus nach partieller Exstirpation des Larynx und Pharynx-Resektion. P. Freund (Breslau).
71 *Die äussere cervikale Oesophagotomie zur Extraktion von [illegible]ign bodies). Balacescu
72 [illegible] and A. Ellinger.—Ueber [illegible] Beitrag zur Frage der [illegible]

66. Anesthesia for Extracting Teeth.—Läwen gives the history of anesthesia for this purpose, and recommends injection of a combination of cocain and adrenalin as far superior to all other methods. He mixes three drops of 1 per 1,000 adrenalin to each c.c. of a 1 per cent. solution of cocain. One or 2 c.c. of the mixture are sufficient. The anesthesia thus obtained is much more durable than by other methods, while the intense anemia of the parts favors the intervention, and reduces the toxicity of the cocain. Even in cases of caries and alveolar periostitis, the anesthesia is nearly always perfect, but it is liable to be occasionally imperfect in case of pulpitis.

67. Operations on Tumors in Nasopharynx.—Payr has been much pleased with the ample access afforded by the Kocher technic of resecting both jaws. The disfigurement and functional disturbances caused by the intervention are trivial, while its advantages are obvious. He places the patient on a steep incline with the head raised, but hanging over the edge of the table. This avoids much passive hyperemia, and enables preliminary tracheotomy and ligature of the carotids to be dispensed with. He employs this position likewise for other operations on the upper air passages. He mentions that it is wise to determine the vascularity of polyps in the nasopharynx before operating on them. This can easily be done by examining them after the head has been hanging down.

71. Foreign Bodies in Esophagus.—The statistics presented include a case personally observed and 325 collected from the literature, in which the foreign body was removed by external cervical esophagotomy. The mortality was 21.1 per cent. of the total number, but only 12.6 per cent. of the 55 cases during the last three years. The details of each case are briefly summarized. The most dangerous foreign bodies are stones, bones, false teeth and coins. Pins caused two deaths in the 13 cases in which the operation was performed on this account; coins five deaths in 45 cases, nearly all children, and false teeth, twenty-four deaths in 111 cases. The fatal termination was usually due to lesions from the long sojourn of the foreign body in the esophagus.

Archiv f. Verdauungskrankheiten (Boas'), Berlin.

Last indexed page 619.

73 (IX, No. 5.) *Utilization of Nutrient Enemata. Bial (Mering's clinic, Halle).—Ausnützung von Pepton- und Pepton-Alkohol-Klysmen.
74 *Bemerkungen über Gastralgie, Magen-Kolik und Kolik im Allgemeinen. Meltzer (New York).
75 Dilatation of Esophagus Without Stenosis of Cardia. Kelling.—Ueber Erweiterung der Speiseröhre ohne Stenose der Kardia.
76 *Enteralgie und Kolik. Ueber Mesogastralgie, zur Klarstellung des Begriffes Enteralgie. Buch (Helsingfors).
77 Zur Methodik des Albumosen-Nachweises. O. Freund.

73. Utilization of Nutrient Enemata.—Bial has tested various nutrient enemata on his own person, and found that the absorption of peptone enemata reached 50.5 per cent., and of the peptone-alcohol, 60 per cent. The formula found most effective at the clinic is 25 gm. each of pept. sicc.; sacch. lact., and absolute alcohol, with ten drops of tinct. op. simpl., and water to 250 gm. Three such enemata are given during the day.

74. Study of Colic.—Meltzer accepts the law that normal peristalsis consists in the contraction of the canal above and relaxation below the point of irritation. When to the contraction above is superadded a contraction below, the result is colic, as the content pressed down from above is arrested by the contracture below. He explains gastralgia by a modification of this law, regarding the contrary innervation as possibly a factor in the pathology of the crises of tabes.

76. Enteralgia and Colic.—Buch ascribes the pain in certain cases of gastralgia and enteralgia to the plexuses of the sympathetic, behind the organs which are apparently the seat of the colic. Pressure on these plexuses in these cases will elicit pain similar to the preceding colics. He suggests the term mesogastralgia for the pains in the lower lumbar sympathetic system, including the aortic and upper hypogastric plexuses, and epigastralgia for those in the upper lumbar sympathetic. He recognizes three varieties of mesogastralgia. In the first there is an almost constant sensation of discomfort in the mesogastrium, and the lumbar sympathetic is in a condition of irritation which entails mesogastralgic attacks on slight provocation. In the second variety, the periods of excessive irritability of the lumbar sympathetic alternate with others of normal conditions, the intervals ranging from a few days to weeks. He thinks this group includes von Leyden's "periodical vomiting" and the gastric crisis of tabes. The third variety is marked by a sudden violent attack occurring in the midst of health and gradually subsiding, but leaving for some time an echo of the previous disturbances. All three varieties have in common a constant overexcitability of the lumbar sympathetic, due to a great number of possible causes. He thinks that this neuralgia of the mesogastric lumbar sympathetic system is a very frequent affection, far more frequent than true bowel colic.

Berliner klinische Wochenschrift.

78 (XLI, No. 5.) *Ueber cytodiagnostische Untersuchung des Liquor cerebrospinalis. E. Meyer (Kiel).
79 *Perityphlitis, Peritonitis, Meteorismus. A. Oppenheim (Berlin).
80 *Lactagog. T. Zlocisti (Berlin).—Die Steigerung der Secretion bei stille[illegible]
81 *Cancer of the [illegible]erlin).—Zur Prognose der bösa[illegible] (Commenced in No. 4.)
82 (No. 6.) *Zur medicamentösen Behandlung von Neuralgien und Myalgien. E. Meyer.
83 Recurrent Paralysis from Mitral Stenosis. A. Alexander.—Fall von Recurrenslähmung bei Mitralstenose.

times and in different regions. At the Presbyterian Hospital in New York City during the past decade more than 12 per cent. of all cases of pneumonia have resulted in recovery without any medicine whatever, and the large majority of remaining cases which have terminated favorably have been treated symptomatically, although some of the so-called "specifics" have been given fair trial, such, for example, as large doses of carbonate of creosote, antiseptic inhalations, antipneumococcus serum, etc. Yet the mortality from the disease in that hospital does not vary one way or the other from the general average elsewhere. My personal experience with the creosote treatment in that institution, as well as in the severe alcoholic type of pneumonia which prevails in Bellevue Hospital, has not been convincing, and I have very little faith in its efficacy. It is extremely doubtful, also, whether any form of antiseptic inhalation can act as a prophylactic against the extension of a pneumonic process, much less penetrate an already consolidated lung. I would not be understood as denying the possibility of combating the disease by some specific mode of treatment, but until such remedy can be demonstrated to exist to the satisfaction of the medical profession at large, by repeated successes under varying conditions, it is well to check the enthusiasm born of meager experience, which tends especially to impress the laity with delusive hopes.

Ever since the advent of the grippe in 1890 there has been increased talk of "aborted" pneumonia, i. e., pneumonia cut short by drugs, and there have been many cases this winter the behavior of which as regards their limited physical signs and duration has been, to say the least, atypical, but other germs than the pneumococcus are capable of producing these phenomena, and I have never been convinced that a genuine pneumococcus lobar pneumonia, the original "croupous" or "fibrinous" pneumonia, with all its definite characteristics, can be systematically cut short in full career by any system of treatment at present at our command. There are plenty of mild cases to be seen to-day of influenzal type, in which there is a suspicious patch of apparent consolidation at the base of one lung, or elsewhere, which terminate in resolution of their own accord in two or three days, but these are not the subject of the present discourse. In discrediting any "abortive" treatment of pneumonia I would go still further and discountenance wholly the use of certain drugs which have been strongly recommended, such as the entire coal-tar series and jaborandi or pilocarpin, which I have known to produce edema of the lungs in very short order.

THE USE OF ALCOHOL.

Probably no phase of the topic under discussion has incited more controversy than that of the use or abuse of alcohol. My own tendency is to use it much less abundantly than formerly, and not at all as a routine practice. Many patients do best without it, but with a feeble dicrotic pulse, a dry tongue and a profoundly asthenic condition, it is best to give it, perhaps, to the extent of from four to six ounces of whisky or brandy in the twenty-four hours—seldom more than this. To the aged, alcohol should be given early in moderate dosage, and also to alcoholic subjects. I am aware that there are those who do not prescribe it, even for the latter class of patients, but in the wards of Bellevue Hospital, where the majority of all pneumonia cases are met with in more or less strongly alcoholic subjects, I have repeatedly tried to give it up altogether, but have felt impelled to return to it. As a hospital interne, I have seen whisky given at the rate of an ounce an hour—24 ounces in the day—to patients of this class, and was taught that it was doing good so long as it kept the tongue moist and improved the quality of the pulse and that it was a necessary routine remedy; but the general belief in this regard has been considerably modified, and with the exceptions above noted, it is best to withhold alcohol until there is decided evidence of failing heart action.

EXPECTORANTS.

If a comprehensive statement is to be made in regard to the employment of expectorants in pneumonia, it had best be said that in general they are contraindicated. Many patients do well whose expectoration is trifling—perhaps not more than a few drams throughout, and the symptom is of no prognostic import one way or the other. Expectorants, moreover, are prone to disorder the stomach and interfere with the proper assimilation of nourishment, stimulants and other medicines. There are but two theoretical grounds for their use, first to rid the system of possible toxic material from the pneumonic area of the lung proper, and, second, to rid the bronchi of tenacious secretion which might lessen their lumen and render breathing in the normal lung more difficult. In regard to the first of these factors, during the period of dense consolidation when the patient is usually at his worst, there is but little material capable of expectoration from the solidified lung, and it is not to be expected that the trifling amount of toxic substance which sputum might contain is of any importance in comparison with the main toxemia of the system. The effort of coughing is both exhausting and painful to the patient, and attempts to increase it at this period are not advisable. As the pneumonic exudate softens, the patient is usually far on the way toward defervescence or even convalescence, and it makes little difference whether the exudate is reabsorbed or expectorated. With regard to the second factor in those cases in which there is a somewhat copious tenacious bronchial secretion, the efforts at frequent coughing may prove very exhausting, and although this secretion is presumably incapable of adding to the general pneumonic toxemia, it may be well to aid its removal with one of the ammonium compounds, such as the chlorid or carbonate in some simple cough syrup, like that of wild cherry. In those exceptional cases in which the bronchial secretion is very abundant and partakes of the nature of a bronchorrhea, it may be preferable to attempt to lessen it with small doses of atropin sulphate (gr. 1/200), and by the use of a large mustard paste or of dry cups applied anteriorly when the patient is too ill to be turned. This latter treatment, the atropin and mustard or cupping, is to be recommended also whenever pulmonary edema supervenes.

THE GASTRO-INTESTINAL TRACT.

Gastro-intestinal disorder should receive especial attention in prophylaxis and treatment. The disorder is usually more pronounced in the intestine than in the stomach and has a twofold effect: (1) Mechanical, through abdominal distension or rigidity which embarrasses the respiratory movements; (2) toxic, through absorption of products of malfermentation. The common initial dose of calomel should not be omitted, and the bowels should be subsequently kept active with a non-effervescing saline laxative. Tympanites in pneumonia is as much to be dreaded as in typhoid fever, and should be similarly dealt with by temporarily changing the diet from milk to broths and egg albumin, the administration of salol and a laxative, the use of turpentine abdominal stupes, and the giving of a stimulating turpentine enema, or passage of the rectal tube to promote expulsion of flatus.

Although no special variety of indigestion characterizes pneumonia, the tongue is often foul and the high temperature and toxemia inhibit or alter the normal digestive secretions, and passage of more or less feculent and fermenting stools is common. The symptom of persistent hiccough is most serious, and I have rarely known a patient to recover who presented this complication, for it seems to be due rather to central than local irritation, and can, therefore, only be relieved by anodynes, the use of which may prove deleterious in other ways. In the control of intestinal putrefaction, the main reliance should be placed on laxatives and such antifermentative remedies as salol. Irrigation of the bowel usually is too disturbing to the patient to be undertaken. It is very desirable to insist that the patient drink as much cool water as possible, although this often becomes difficult owing to the presence of delirium or the interference which repeated swallowing produces with respiration.

DELIRIUM.

The control of delirium in pneumonia may become a serious problem, whether it be due to alcoholism or to the disease itself. In mild cases, mild remedies should be first tried, such as the bromids, codein or trional. The latter is a very safe, non-depressing remedy in moderate doses (gr. xv-xx), and it acts particularly well in conjunction with codeia. I have seen serious conditions result from the giving of even small doses of morphin in the delirium of pneumonia. Less than a quarter of a grain may sometimes produce marked increase in cyanosis, and irregular or Cheyne-Stokes breathing. If used at all, it should be combined with atropin and some form of heart stimulant. When the delirium is the outcome of hyperpyrexia, it may be controlled to a large degree by the cold wet pack. With a severe alcoholic delirium or maniacal delirium from any cause, the problem is quite different. The patient is particularly liable to have delusions of persecution and attempt to escape, or he is constantly exhausting himself by shouting and violent jactitation. In such a predicament the only possible chance of recovery lies in preventing the exertion which may culminate in acute dilatation or other enfeeblement of the heart. Paraldehyd, hyoscin hydrobromate and morphin may all in turn have to be used, and in dosage which one does not like to be quoted as recommending, for fear of misinterpretation. The importance should be emphasized of giving digitalis or some other heart stimulant when large doses of depressing hypnotics are required for emergency.

OXYGEN.

The value of oxygen inhalation has been much discussed. The gas is expensive, is easily wasted, and it has acquired so much unfortunate newspaper notoriety that the popular impression prevails that it is used only as a last resource, when all else has failed. In many cases it is certainly of doubtful utility and fails to make any impression on either cyanosis or the embarrassed respiration. Nevertheless, I believe it is often of distinct service, and I do not like to treat a severe case without it. It often relieves subjective dyspnea, and thus has a mildly, soothing effect on the patient; and there are not a few cases in which it produces improvement in objective symptoms as well. It should not be left until the patient is *in extremis*, but, if administered at all, it should be given early and abundantly, and the nurse should be cautioned not to let the patient increase his exhaustion by voluntary efforts at deep inhalation of the gas, or its benefits will be neutralized. It is difficult to explain its value under the laws of the physics of respiration, for there is much unused oxygen returned in the exhaled atmospheric air of normal respiration, but the atmospheric air immediately surrounding a rapidly breathing pneumonic patient is none too pure, and if oxygen acts in no other manner, it certainly supplies a chemically pure air in convenient form without draft or chill. In this connection the importance of maintaining the air about the patient as pure as possible should be emphasized. Gas and kerosene stoves, unnecessary gaslights, like the lungs of anxious friends who insist on crowding into the sick room, not only consume much oxygen, but vitiate the remaining atmosphere with carbon dioxid and other noxious material. In excluding members of the patient's family from the room, it is well to explain to them that this is done, not alone on the ground of securing absolute quiet, but also to insure purity of the atmosphere.

HYPODERMOCLYSIS.

Of recent years the treatment of hypodermoclysis has added a valuable therapeutic measure. In most cases it is to be preferred to direct venous infusion, as the salt solution used is thrown more gradually into the circulation. It has been objected that this method of treatment is liable either to produce pulmonary edema or to injure an already overtaxed heart by increasing vascular tension; and, further, that the small volume of fluid, i. e., relatively small as compared with the total volume of blood in the body, can not dilute the toxins present in the circulation to any appreciable degree. These objections appear to me somewhat theoretical, for with considerable experience with hypodermoclysis in pneumonia, I have yet to see any ill effects follow it. On the contrary, in not a few desperate cases, I have known it to save patients who seemed past every hope of recovery. When the respiration is shallow, intermittent and irregular, cyanosis is extreme, the pulse is scarcely perceptible, and there is coma and complete asthenia, the hypodermic injection into the flanks of 1,000 or even 600 c.c. of hot (110 F.) normal salt solution (0.6 per cent.) will sometimes produce a surprising response, and enable the patient to rally for an hour or two, when the procedure should be repeated. The rectal injection of salt solution may also prove of great service.

LOCAL APPLICATIONS.

Topical applications to the chest wall should be made with the view of promoting the comfort of the patient rather than with any idea of influencing either the inflammation or circulation in the lung. For many years I have given fair trial to all manner of applications to the chest wall, hot poultices, ice poultices, ice packs, mustard pastes, cold wet dressings, the pneumonia jacket of cotton or flannel reinforced by oil silk, and the like, but without acquiring the belief that they have the slightest influence on the course or outcome of the disease. At one time I made a series of experiments to determine the depth at which external thermic agents, both hot and cold, could be made to locally modify deep-seated body temperature. Selecting several patients who had long sinuses resulting from chronic empyema which had been operated on, I inserted specially constructed long-stemmed thermometers for a depth of from six to eight inches into the thoracic cavity. Poultices as hot as could be borne (in some instances at 130 F.) alternating with ice, were applied over the chest wall, but in no instance was the temperature of a deeply inserted thermometer capable of modification more than one-eighth of one degree F. By similar experiments repeated on the cadaver, however, the intrathoracic thermometers were decidedly influenced. The conclusion is justified that so long as the superficial cutaneous circulation is maintained, the constantly moving blood conveys away either the heat or cold of any external application, thereby preventing a deep-seated organ, like the lung, which also has an independent vascular supply, from being influenced.

It can scarcely be maintained that any deep-seated reflex effect called into play through external applications of heat or cold independently of direct transmission of thermal units, is capable of controlling an inflammatory process in the lung. I have emphasized this matter, because it has never seemed to me that any form of topical treatment of pneumonia can influence the lung itself. Such treatment is, however, of great service in relieving those patients in whom pleuritic pain is an important feature. As a rule, heat is more soothing than cold, but there are many exceptions, and one sometimes sees patients who have been made most uncomfortable by being half smothered in heavy hot poultices, the frequent renewal of which produces serious disturbance. Strapping the chest with adhesive plaster, although it relieves the pleuritic pain, materially interferes with careful physical examination of the lung. For the reasons above given, it is my custom to employ no topical applications at all, unless called for by excessive pleuritic pain, when the choice between the use of heat or cold should be decided by the patient's comfort, rather than by routine.

HYGIENE.

The general hygienic treatment of pneumonia is substantially that of typhoid fever, and I shall not take time for its discussion here, for it involves questions which are much less the subject of controversy than the use of drugs. As for diet, with high fever and tongue dried by mouth breathing and heavily coated, milk constitutes the best food, but under more favorable conditions considerable variety may be allowed, and such articles may be given as broths, egg albumin, beef juice, orange juice, kumiss, junket and palatable gruels of various kinds. The care of the mouth should receive as much attention from the nurse as in typhoid fever, for a foul tongue promotes the indigestion which has been above referred to as so injurious, besides making it difficult to swallow, and adding much to the discomfort of the patient. The usual mouth cleansing with hydrogen peroxid and mild antiseptics should be performed.

THE IMPORTANCE OF REST.

Overzeal in the treatment of pneumonia is, I think, more to be criticised than anything else. This includes overstimulation of the heart, overuse of expectorants, and above all incessant "fussing" about the patient, who, in the well-intentioned but ill-advised efforts of his care-takers, is often allowed scarcely ten minutes in the day for repose. I was lately called to see a physician in desperate plight with double pneumonia, whose brother practitioner was giving him frequent stimulating hypodermic injections, whose nurse was constantly administering expectorants and stimulants in the intervals of renewing poultices and supplying oxygen, whose wife was aiding by giving cold sponge baths literally every fifteen minutes (!), and whose anxious family were frequently looking in at the door to inquire how he felt.

It takes some courage and much experience not to overdo in the treatment of pneumonia. There is no other disease in which the idea of combat against the elements of death presents so active and intense a clinical picture. The picture changes from hour to hour, the time for combat is brief, and no matter how severe the odds against life may appear, there is always a chance, what one terms the "fighting chance," up to the patient's very last breath. Hence, the temptation for active interference may outweigh one's calmer judgment, and the patient may lose through exhaustion that modicum of strength which might at the last moment have turned the balance in his favor. It may seem somewhat trite, but experience shows that it is not so, to insist that proper intervals of absolute rest, of two or even three hours, should constitute a definite part of the treatment. The giving of medicines, food and stimulants, as well as all remedial measures, should be so carefully outlined for the nurse that there be no mistake on this point, and during each twenty-four hours there should be several such periods for rest prescribed. An hour's sleep will often do more to save the patient's life than all the medication he has received throughout the disease, and there are times when it should be remembered that "they also serve who only stand and wait."

CONCLUSIONS.

I am well aware that there is much more to be said regarding the treatment of pneumonia, but I have purposely confined these remarks to the emphasis of what has seemed most satisfactory in my individual work, leaving for others the expansion of the topic. It has always seemed to me that good nursing and the exercise of constant watchfulness should outweigh polypharmacy and specifics.

In closing this brief outline of treatment, I would emphasize certain conclusions as follows:

1. The importance of not crowding an overtaxed heart with too much stimulation, and especially of basing the selection of the proper variety of cardiac stimulant on the existing balance between the conditions of vascular tone and the effort the heart is already making.
2. The uselessness of the so-called "specifics" for pneumonia, and, as a rule, of expectorants.
3. The importance of prevention of indigestion and particularly of tympanites.
4. The great value of hypodermoclysis in certain cases.
5. The uselessness of topical applications excepting for the purpose of relieving pleuritic pain.
6. The necessity of prescribing proper intervals of rest in which the patient is free from incessant efforts at medication.

DISCUSSION

Dr. George L. Peabody believed that intelligent symptomatic treatment was the general attitude of the profession. In violent, uncontrollable, maniacal delirium the cold bath acted very well as a sedative, and he had no doubt that he had often saved life thus when death seemed imminent. A confusion of ideas exists regarding morphin. It does not affect the peripheral but only the central respiratory act and, in pneumonia, the central respiratory function is not at fault. He prefers paraldehyd or amylene hydrate to sulfonal or trional when a hypnotic is needed. It can be given in peptonized milk or by rectum, and a large quantity of the vehicle should be given. For some time past he has been treating cases of pneumonia with salicylates, preferring aspirin because better borne by the stomach. He has so treated 60 or 70 consecutive cases and aspirin certainly had an influence on the disease as proved by the fact that defervescence took place by lysis in 32 per cent. of the cases. He was skeptical regarding any so-called abortive treatment. He looked on hiccough as a bad symptom. If severe and persistent, with high arterial tension, inhalations of amyl nitrite have given him good results. He advocated oxygen if used early and abundantly before signs of cyanosis appear. Locally he approved of the electric warm pad.

Dr. L. A. Conner said that the treatment at the Hudson Street Hospital was purely symptomatic; unless stimulants were really demanded the patients received none; diet was milk, and an abundance of water was given. Not one-quarter as much alcohol is given now as three or four years ago, and without less satisfactory results. During the past two years one-half the patients with pneumonia had been placed on carbonate of creosote, and he hoped eventually to be able to present some statistics regarding the effect of this agent. Emphasis was laid on the importance of watching the abdomen, especially the tympanitis, which was more serious in pneumonia than in typhoid fever. Turpentine stupes were applied frequently and colon irrigations of hot and cold fluids, administered alternately, seemed to give the best results. Pulmonary edema was best treated by dry cupping frequently done.

Dr. Charles E. Quimby believed that keeping a uniform temperature to the body surface had a beneficial effect on the circulation in the lungs. Dry cough could be often relieved by dry friction. He thought it wise to have the temperature of the room above 80 degrees at all times, and the air full of moisture.

Dr. Morris Manges thought that the statistics from the Massachusetts General Hospital, covering nearly 100 years, showing an average mortality of between 10 and 11 per cent., were not reliable because they exclude pneumonias occurring in the young and aged. Wells' statistics, amplified by Osler, give a more correct mortality of 20 per cent. These latter statistics were taken from all over the United States, and embrace 255,000 cases. The routine examination of the abdomen he believed to be of more importance than the routine examination of the lungs. Paralytic distension of the bowels was not alone due to the intestinal contents, but also to a septic process. Cases in which there was no relief of the tympany were beyond the reach of local treatment. He cautioned against the use of even mild cathartics in abdominal distension. especially when of septic character. Venesection he believed to be of value in some cases, especially sthenic. Guaiacol had been of value in his hands in catarrhal pneumonia associated with grippe. Sodium salicylate seemed to act well in children. He did not use morphin in pneumonia, although tentatively he had tried heroin, but without satisfactory results.

Dr. Edward W. Lee emphasized the importance of hypodermoclysis, especially in pneumonia, following operation.

Dr. Alexander Lambert referred to ergot as an equalizer of the circulation, constricting the dilated blood vessels; he had used it with benefit in alcoholic and other pneumonias, in the tympanitic distension in both adults and children, and in edema of the lungs, especially when associated with dry cupping.

Dr. Gilman Thompson said that pneumonia often followed surgical operations because of the lowered vitality. The pneumococcus was present in one out of every five normal mouths, so that the opportunity for the disease to develop was always present under certain circumstances. The respiratory difficulty was the result of the action of toxic material contained in the blood acting on the respiratory center in the medulla. This was proved by the fact that when defervescence occurred the cyanosis cleared up, etc., when the lungs were not yet entirely resolved. The dyspnea was distinctly of central origin, and due to the poison contained in the blood. If the cerebral centers were overwhelmed with the poison morphin would then be injurious.

TUMORS INVOLVING THE CAUDA EQUINA,

WITH REPORT OF CASE.

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CHICAGO.

Tumors involving the cauda equina or causing symptoms by pressing on the cauda may have their origin either within the contents of the meninges, i. e., in the nerve trunks of the cauda or in the meninges themselves, or in the structures outside of the dural sheath, especially in the vertebral column.

Tumors having their origin within the cauda itself are not numerous. In a case reported by Volhard,[1] with typical symptoms, a diagnosis of neoplasm of the cauda equina was made and operation decided on, but the patient came to autopsy before it could be performed. A glioma was found close below the conus medullaris, compressing the roots of the cauda against the lumbar vertebræ.

A second case was reported from the service of Dejérine[2] at the Saltpetrière in 1895, and presented the symptoms of compression of the cauda equina. Operation was attempted by Chipault, but was unsuccessful, and the patient died three hours after the completion of the operation. A small-celled sarcoma of the cauda equina was found. Neurofibromatosis of the cauda equina occurs in connection with neurofibromatosis of other parts of the nervous system. Five cases were collected by Thomson,[3] and reported, respectively, by Hürthle and Nauwerck,[4] Küpferberg,[3] Leboucq,[3] Nélaton, Houel,[3] and Soyka.[5] Two cases of malignant growth, one a sarcoma of the cauda equina fibers, the second a fibrosarcoma, situated between the strands of the cauda are reported, respectively, by McCosh[6] and Fränkel.[7] In the latter case, the involvement was unilateral, the mass confining itself to the fibers coming from the left side of the cord.

Cases in which the growth springs from the meninges are less common, and the variety of the tumors is small. Sarcomas are the most frequent and are generally of the small-celled variety. Endothelioma is met with less frequently than sarcoma, but the symptoms produced are quite similar. Starr[8] reports a case of this variety in which McCosh removed the spines and arches of the second, third and fourth lumbar vertebræ. The endothelioma had involved both hard and soft tissues, the spines and arches being eroded. Another case, which compressed the cauda equina, is reported by Troitzky.[9] Among other tumors which may be, though rarely, encountered in the meninges, are fibromas, lipomas and secondary carcinoma.

The greater number of tumors of this region are extradural in origin. Typical symptoms are produced by noted that in lesions of the latter, the "symptoms develop more rapidly; the various sensory disturbances may not be alike; pain and temperature sensations are more frequently seriously affected than tactile sense. Severe pain is absent, provided the conus lesion does not involve the cauda fibers. Disease of the conus is more likely to cause decubitus than caudal disease. The most important symptom of caudal disease is pain. A conus lesion may be associated with pain, provided the cauda meninges are also involved. The absence of pain is indicative of conus lesion."

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[1] Deutsche med. Wochenschrift (Berlin and Leipsic), Aug. 14, 1903.

[2] Comptes des Séances de la Soc. de Biologie, 1895, p. 622.

[3] Thomson, A.: Monograph on "Neuroma and Neurofibromatosis."

[4] Ziegler's Beiträge, vol. i.

[5] Prag. Vierteljahrsschr. f. d. prakt. Heilkunde, vol. cxxxv.

[6] The Journal A. M. A., Sept. 7, 1901.

[7] Jour. of Nervous and Mental Dis., December, 1902.

[8] N. Y. Neurological Soc., Dec. 4, 1900.

[9] Prager med. Woch., 1893, p. 603.

V. Bechterew[18] makes the point that the principal differentiating feature between lesions of the cauda and of the conus medullaris consists in the fact that conus lesions cause an anesthesia limited to the anoperineal region, and that the sciatic field, so commonly affected in cauda lesions, does not participate. The differential diagnosis of the two conditions is important, since disease of the cauda equina is often amenable to surgical treatment.

This consideration of the symptoms of disease of the cauda equina and its differentiation from lesions of the conus indicates clearly the basis on which a diagnosis of disease of the cauda equina was made by Dr. Sippy, after which the case was transferred to the surgical service of Dr. Bevan for operation.

In reference to the height of the lesion, if no local signs indicating involvement of the spine are present, as in this case, to aid in locating the lesion, it is proper to assume that the upper limit of the lesion is just above the exit of the highest nerve disturbed. A reference to Figure 2 will show *that the highest nerve disturbed* in this case is the fourth lumbar.

Operation.—July 16, an incision was made extending several inches above and below the fourth lumbar vertebra. A spindle-shaped mass, three inches long and two inches wide, was found to the right of the spines, situated outside the laminæ. A part of this was excised, two laminæ removed, and the membranes of the cord were found to be made up of the same solid tissue. The incision was closed without drainage. Cover glass preparations of the tumor stained for bacteria, as well as inoculation of tubes of blood serum and glycerin agar, were negative.

The part of the tumor mass removed weighs 30 grams and measures 6 cm. in length, this axis corresponding to the axis of the spinal cord; 4 cm. in width, this corresponding to the lateral diameter of the body, and 2.5 cm. in depth, this corresponding to the antero-posterior diameter of the body. The shape is irregularly triangular, the base and apex of which are formed, respectively, by the upper and lower poles of the tumor. The color, a whitish gray as a whole, is modified somewhat in two areas, one (Fig. 3, b) on the posterior and left lateral aspect, where a dark-red color marks a portion incorporating the deep muscle fibers of the back. The second variation is noted at the base of the triangle on the right side, where a nodule (Fig. 3, a) 1.5 cm. in diameter presents a creamy white appearance. The relation of the removed mass to the neighboring structures is as follows: The anterior surface was in direct contact with the laminæ of the vertebral column; the posterior surface incorporated in the deep musculature and fascia of the back; the lateral parts of the removed piece were in contact with the rest of the tumor mass, which was not removed. The consistency of the tumor removed is firm, rebounding when dropped on the table. On cut section the knife meets with firm resistance, and the same general color noted above persists, but in addition are many small yellow areas, varying in size from a pin head to a small bean. The largest of these yellow areas is seen in the nodule described above.

Many sections were taken from different parts of the tumor, and the predominating arrangement is as follows (Figs. 4 and 5): The capsule is thick and composed of large wavy strands of fibers arranged in lamellæ. The nuclei are elongated, spindle-shaped and deeply stained (hematoxylin and eosin). The intercellular substance is homogeneous and pink. Young blood vessels are present in great numbers and many contain red-blood corpuscles. Blood spaces without walls occur between the lamellæ, the red-blood corpuscles coming in direct contact with the fibers of the capsule. Clumps of small,

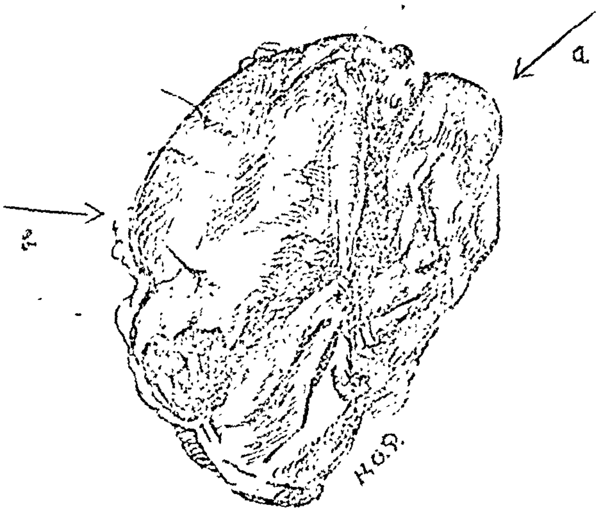

Fig. 3.—The mass removed. a and b, sites from which sections were made.

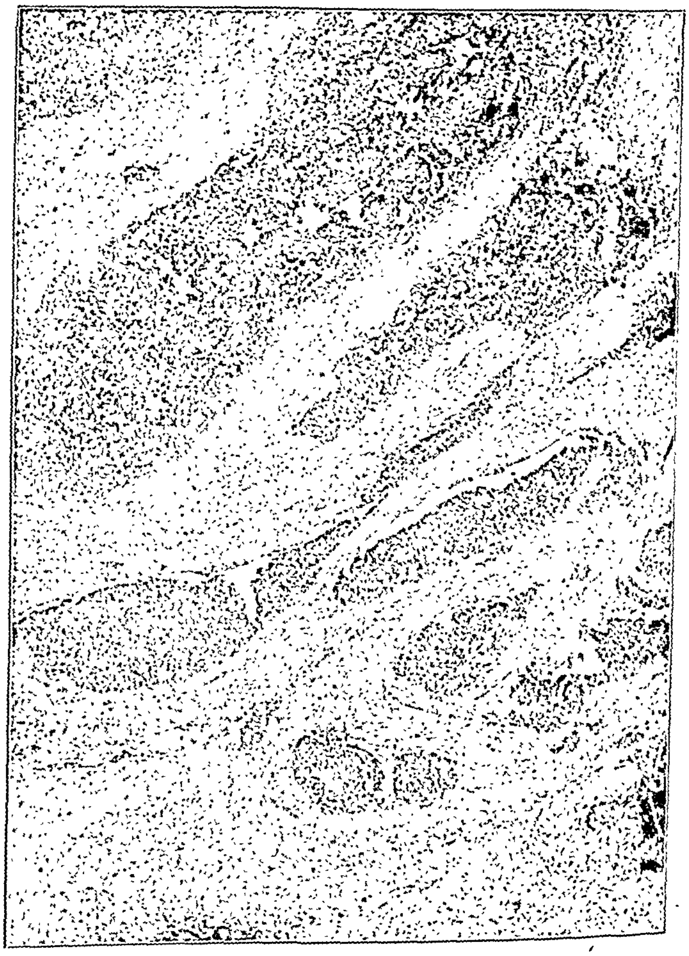

Fig. 4.—Section taken from part of tumor, indicated by arrow b in Figure 3. (Low power photomicrograph.)

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[18] Rev. de Psych. et de Neurol., No. 9, 1899.

round cells are scattered diffusely throughout the capsule. Extending from the capsule are trabeculæ, projecting into the substance of the tissue, dividing the parenchyma into innumerable alveolar areas. The structure of these trabeculæ resembles that of the capsule, except that the smaller divisions show degenerative changes, due probably to pressure caused by growth of the parenchymatous tissue. The nuclei in the trabeculæ are less deeply stained and the intercellular tissue of a lighter pink color. The blood vessels in these trabeculæ are interesting. Some of the vessel walls are composed of a single layer of endothelial cells, which are in direct contact with the fibrous structure of the trabeculæ; these vessels are large and contain red corpuscles. Other vessels are present which have exceedingly thick walls, very narrow channels, and contain but few corpuscles. In many of the blood vessels are large heavily stained cells, similar to those found in the acini of the tumor, and which are to be described later.

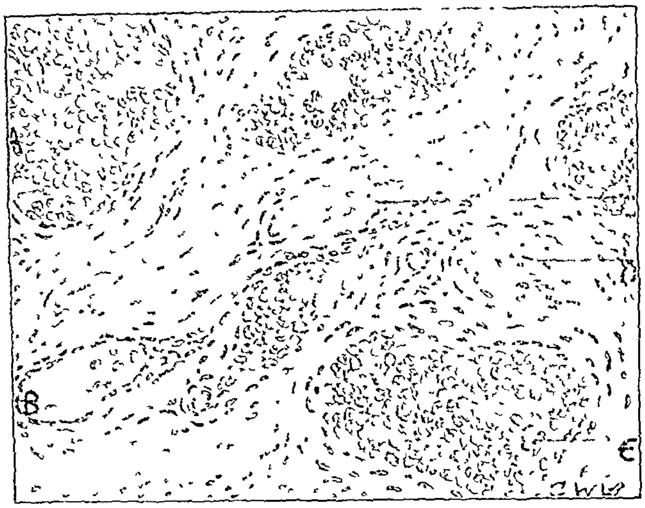

Fig 5—(High power drawing) A, Tumor cells; B, blood vessel containing tumor cells; C, extravasation of blood into stroma; D, stroma; E, young blood vessel among tumor cells.

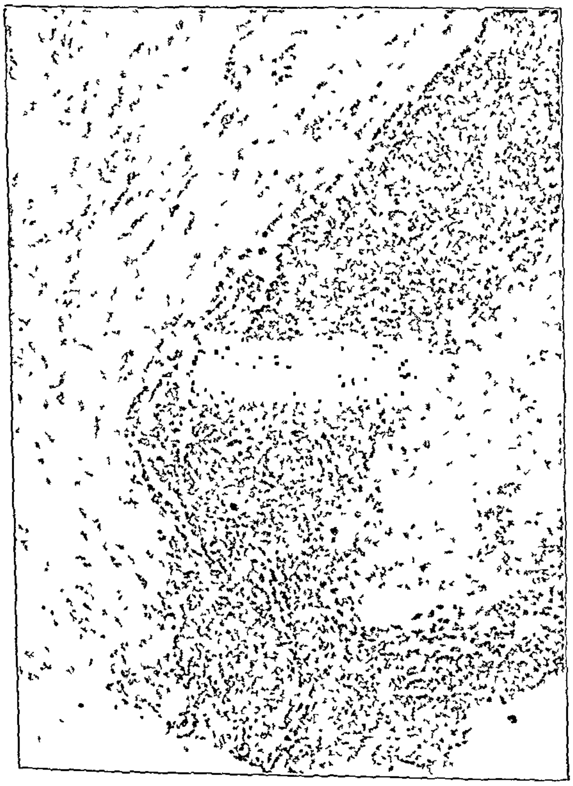

Fig 6—Meningeal involvement—dura invaded by tumor cells. (Photomicrograph)

The parenchyma is arranged in round, oval or irregular-shaped areas, ranging in size from small microscopic divisions, to the size of a pea. These dark-staining masses with thickly beset cells, present a marked contrast with the paler enveloping trabeculæ. The cells are large, round or epithelioid in shape and closely arranged. Their protoplasm in general is translucent, containing many irregularly arranged chromatic granules. Young blood vessels containing red-blood corpuscles are seen in the parenchyma; the walls of these are made up of tumor cells. Areas of degeneration, varying in size from small microscopic areas to .5 cm., are noted in many of the alveoli, especially the larger ones. These areas are of a hyaline-like character, stain pink, and present a homogeneous ground substance in which are imbedded transparent degenerated cells. They correspond to the areas described in the gross section as yellow-colored spots. The faint reticulum contains much blood.

A portion of the dura excised from where the membranes were involved in the tumor, showed, on microscopic examination, invasion by the same tumor cells described in the foregoing (Fig. 6).

The age of the patient, the rapid growth of the neoplasm, its histologic structure and the progressive course of the disease since the operation, are all in conformity with the diagnosis of sarcoma.

Results.—Three months after the operation the patient was found greatly debilitated, and presented an exaggeration of previous symptoms. Control of the bladder was entirely lost and involuntary bowel movements frequent, especially when the patient was asleep. He was unable to walk or even to support himself on his lower extremities. The pains in the limbs and back continued as before the operation, and emaciation was marked.

I am indebted to Dr. E. R. LeCount for valuable suggestions and criticisms during the preparation of this work, and to Drs. B. W. Sippy and A. D. Bevan for the clinical record of the case reported.[19]

RECENT ADVANCES IN ACTINOTHERAPY.

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Young as is the treatment of disease by the various forms of radiant energy, there is already confusion in its terminology, and it will not be out of place to begin this review with the statement that the term "actinotherapy" is now the accepted designation for the method that employs the violet and ultraviolet spectral rays. The *x*-ray treatment is known as "radiotherapy," while "phototherapy" is employed for all kinds of light treatment collectively. There is need for insistence on exactitude in the employment of these terms, and even some of those who especially occupy themselves with phototherapeutics are open to criticism in this regard. Thus Freund entitles the authoritative work that he has just published "*Grundriss der Gesammten Radiotherapie,*" including therein not only the Röntgen treatment. but also that by high-frequency currents, Becquerel rays, visible and ultraviolet light rays, and even heat rays. The latter two agents he groups under the subheading of phototherapy. If the masters are not clear in their terminology the pupils will certainly go astray.

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[19] I would mention, in addition to the authorities already cited, the following: Thorburn, W.; Med. Chronicle, 1889, x, 177-180; Fisher, W. W.: Tr. Prov. M. and S. Assn, Lond, 1841, 2, x, 203; Oliver, J.: Brain, Lond, 1886 7, ix, 550 552.

The scope of this retrospect is therefore restricted to the consideration of the progress that has recently been made in the therapeutic use of the ether vibrations that are appreciable to the unaided eye, together with the ultraviolet and chemically demonstrable ones that lie just beyond them. It practically includes only treatment with concentrated sunlight and with the various forms of the electric arc. It does not include treatment with the ordinary incandescent bulbs; and as there is a very prevalent misconception on that subject, it may not be out of place to refer to it here. The sun and the voltaic arc are the only efficient sources of actinotherapeutic energy that we possess. The incandescent bulb light has extremely little actinic power and penetration; nor can any practicable increase in its candle power or number give us a light that is comparable with even a very small arc in these qualities. The so-called light baths that are equipped with incandescents are practically sweat baths, and nothing more. The assertion that any actinic effect is gotten from them is entirely unsubstantiated, and I shall not consider them in this review.

A number of forms of apparatus, announced as improvements on the original Finsen type, have been introduced during the last year or two. Their aim throughout has been the very desirable one of simplifying and cheapening the apparatus, for it can not be denied that the Danish machine is complicated and troublesome to run, as well as expensive to install and use. I have had an opportunity to see and examine a number of the newer models, including the dermo-lamp, the Lortet-Genoud and the London lamp, and with the others I am familiar from the drawings and descriptions. They all run on small amperages and can be used on the ordinary incandescent wiring, and insofar possess very apparent practical advantages. They all give a superficial reaction; but they can not be expected to have any penetrative power. No attempt has been made to prove that their feeble light penetrates even the epidermis. In experiments recorded last year,[1] I proved that light of sufficient intensity from an arc could be made to penetrate not only the skin, but all the internal organs, and even the skin of the back after traversing the entire thickness of the body and then to influence a photographic plate. I used, however, a 50-ampere arc, giving a 20,000 to 30,000 candlepower light. Power is required for penetration; and without penetration, we can not expect to affect even the deeper layers of the skin, much less the internal organs.

This is a legitimate criticism of the new machines running on from 2 to 10 amperes of current. We can not hope to treat the deeper dermatoses with them, and it is entirely useless to attempt to affect a tubercular or carcinomatous focus in one of the internal organs. It is precisely in these fields that the future of the method lies. The few superficial dermatoses that are amenable to the action of the low-power instruments can well be treated by other means. In the latest publication from his institute,[2] Finsen is especially emphatic on this point. Leredde[3] agrees with him, and says justly that the intensity of surface reaction is no measure of the deep effect. The Lortet-Genoud apparatus gives a bulla in twenty minutes, but the light does not penetrate the tissues. It takes fifteen minutes for it to penetrate a rabbit's ear and affect a sensitive plate. Thinner living animal tissue than that it would be hard to find. With the powerful apparatus that I employ, a muscular human forearm can be penetrated in about the same time, and the chest or abdomen in two or three times the length of time required by the Lortet-Genoud apparatus to penetrate the rabbit's ear. The conclusions that I came to were that light from a source of sufficient actinic power and in sufficient concentration can be made to penetrate the entire thickness of the human body, including both layers of the skin, and that all the internal organs are accessible to its influence; and also that, since no organ or tissue can be more than half the thickness of the body from a cutaneous surface, and most of the internal organs are much less than that distance, the time required for efficient actinic penetration to any depth would be only a fraction of that required in the experiments; and conversely, if the time employed were equal, the chemotaxic effect would be much greater.

Both Finsen and Leredde conclude, and I thoroughly agree with them, that we must abandon the newer weak forms of apparatus, and return to those that concentrate large amounts of light. Of these only two are available. The original Copenhagen model is now purchasable in Europe, but it is hardly suited for any but institution use. It is extremely bulky, must be suspended from the ceiling, and requires an entire room. It is true that four patients can be treated at once; but as almost all the light comes from the crater of the arc, and since that crater is continually changing its position, it is evident that each of the four tubes radiating from the light will receive on the average only one-fourth of the light. This is the chief reason for the daily sessions of an hour or more for long periods of time that are required at the institute.

The instrument that I employ, while by no means small, is movable on castors and is suitable for the office. The full actinic force of the arc is directed on the area to be treated, and the only limit to the concentration of the circle of light is the efficiency of the cooling device in cutting out the heat rays.

Some legitimate objections to the earlier forms of the apparatus have lately been removed. The use of ordinary glass in the condensers and waterbath, which impedes the passage of the ultraviolet rays, has been abandoned; a Jena glass that is almost as transparent as rock crystal to them is now employed. Such, at least, is the assertion of the manufacturers. I can only state from careful comparative spectroscopic tests that it permits very much more of the ultraviolet to pass through than does the ordinary material. I also use a new carbon containing a large amount of iron and manganese in the place of the ordinary electrode. It gives a markedly violet flame that is entirely different from the usual light.

Of other improvements in the apparatus there have been but few. Broca[4] has improved the compressor which is necessarily employed with the low amperage lamps to get any penetration at all. I have not found it necessary to use anything of the kind. De Beurmann[5] applies a 1/1000 adrenalin solution to the part to expel the blood. He claims that it can be kept anemic for an hour in this way. Piffard[6] has lately demonstrated an improvement on this method, using cataphoresis to drive the adrenalin into the tissues. The iron electrodes that Bang announced last year have appeared. They seem to work well for short periods of time with the smaller machines.

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[1] Medical Record, April 18, 1902.
[2] Mitteilungen aus Finsen's Med. Lysinstitut, III, 1903.
[3] Annales de Derm. et de Syph., December, 1902.
[4] Annales de Derm. et de Syph., April, 1902.
[5] Ibid., July, 1902.

In the present state of our knowledge of the subject, I am prepared to say that it is quite useless to attempt actinotherapeutic work with anything less than 20 amperes and 55 volts; and that double that force is desirable if the internal organs are to be treated.

Some attention has recently been paid to the employment of sunlight in the place of the arc. Its applicability is limited, of course, since it can only be used during certain hours on bright days; but the absence of cost and the simplicity of the apparatus required are in its favor and I think will be extensively employed. The conditions are somewhat different from those with the arc. In the latter case we are dealing with rays diverging from a point, and it is desirable to approach the collecting lens as closely as possible to the source of light; and expense limits the size of the lenses in the machine. In sunlight we have practically parallel rays, and the amount of light collected is limited only by the size of the lens. Some ultraviolet light passes through all glass, and it is therefore possible to make the sunlight collecting lens of ordinary glass so large as to compensate for its deficient permeability, and make it equal in actinic power to a smaller rock crystal or glass lens. These considerations have led Finsen to employ ordinary glass and not rock crystal in his sunlight apparatus. The arc contains more violet and ultraviolet rays than does sunlight, on account of the atmospheric absorption; and the electric light can be used on any day and at any time of the day or night.

It would lead me too far to go into the consideration of all the various methods and apparatuses now employed, and I shall, therefore, proceed at once to a very brief consideration of the theory of actinotherapeutic action. The spectral rays that we employ are certainly bactericide. Velyaminoff[7] has experimented very extensively with the most varied pathogenic and non-pathogenic organisms, and states that the micro-organisms are directly and rapidly destroyed by the light; and Nagelschmidt[8] agrees with him. Sack,[9] on the other hand, is more inclined to attribute the results obtained to the photochemical and inflammatory effect. There is also an undoubted effect on the vasomotor nerves. Capillary dilatation, as Bie[10] has shown, is an invariable effect; and this is not a temporary matter, but persists for a long time, even for months, after the other effects of actinic action have passed. In fact, the latest investigations would tend to show that the rays cause a distinct endovasculitis after a time, and that, while slight action may cause vascular dilatation, the ultimate result is an inflammation of low grade with consequent permanent atrophy of the vascular tissues. We must conclude that the action of the light rays is a complicated one. It is, in part, directly bactericide and in part photochemical on the vasomotor nerves and the vascular structures. In addition to these, there are remoter effects in the stimulation of the tissue oxidation processes and new connective tissue formation.

In one respect the light action differs markedly from that of the *x*-ray, and that is a very important one from a practical point of view. The reactive tissue changes that it occasions are always moderate and controllable; and they appear promptly. There is never any delayed, excessive or uncontrollable effect. The condition of the hands of many of the Röntgen operators, and their insistance on their patients signing a release before beginning treatment, is sufficient evidence of the reality of the danger. A very considerable experience, now extending over several years, leads me to be positive on this point, and this with the most powerful currents available. The reaction can be pushed to vesiculation in a single session, if desired, and redness and swelling always occur. But all these phenomena disappear in a few hours or a day or two, and require, at the utmost, the application of a dusting powder. There are never any remote effects. Actinotherapy is perfectly safe.

Turning now to that portion of the subject that interests us most—the results obtained from the method—we are confronted with the facts that it has so far been employed by dermatologists almost exclusively, and that many of these used only the smaller and inefficient apparatuses to which attention has already been drawn. The report material is large, but not all of it is valuable. In lupus vulgaris, tuberculosis verrucosa cutis, tubercular ulcer, postmortem tubercle, etc., it is firmly established, not only as the most eligible, effective and innocuous treatment, but even as a test. Lesions that do not react and improve under it are not tubercular. Finsen's cases now number about 1,000, and almost all of them have been cured. His conclusions have been confirmed by many recent investigators, of whom I shall mention only a few. Klabowsky[11] reports 37 cases, including many old and intractable ones, that all did well. Gaston, Baudouin and Chatin[4] report 78 cases, one-third of them being completely and permanently cured; most of the others came irregularly or disappeared. There are similar experiences from a long list of investigators, among whom I shall merely mention Petersen,[12] von Ziemssen,[13] Velyaminoff,[14] Schmidt,[15] Sack,[16] Danlos,[17] Jessner,[18] and Hopkins.[18]

I have treated a number of cases myself with most excellent results, but I have not as yet published anything about them. I have had sufficient personal experience, however, to entirely confirm the conclusions of the European investigators. The affections are cured with the smallest possible amount of tissue absorption; the cicatrix is often hardly apparent. This is a point of extreme importance, since the face is the part most often affected.

Lupus erythematosus is a new field for the actinotherapeutic method. An article will shortly appear embodying my own results. Out of four private cases I have had three cures, and the fourth one was very extensive and of many years' standing. The patient lived in a foreign country, and was only under treatment for a short time. Ravogli[19] has treated a case of nine years' standing, in which the nose and both cheeks were involved. Finsen's latest report includes 31 cases, with 11 complete recoveries; and 19 cases were still under treat-

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[6] Medical Record, March 7, 1903.

[7] THE JOURNAL A. M. A., April 12, 1902.

[8] Archiv für Derm. und Syph., Nos. 2 and 3, 1903.

[9] Dermatologisches Centralblatt, September, 1902.

[10] Verhand. des Vereins f. innere Med., Wiesbaden, April 15-18, 1903.

[11] Wratch: Dermatologisches Centralblatt, July, 1902.

[12] Wratch: Monatshefte f. prak. Derm., April 15, 1902.

[13] Monatshefte für prak. Derm., June 15, 1902.

[14] Roussky Wratch: THE JOURNAL A. M. A., April 12, 1902.

[15] Archiv für Derm. und Syph., March, 1902.

[16] Münchener med. Woch., Nos. 13 and 14, 1902.

[17] Annales de Derm. et de Syph., June, 1902.

[18] THE JOURNAL A. M. A., Sept. 13, 1902.

[19] Cincinnati Lancet-Clinic, Nov. 9, 1901.

ment at the time the account was written. Leredde and Pautrier had 23 cases; 3 were complete failures; 3 were improved; 6 had "segmentary cures" of the patches treated, and 11 were entirely cured. These authors have added some interesting details concerning their cases, which are worthy of note as emphasizing the intractability of the disease and enabling us to estimate the value of their results. They had had altogether not less than 802 galvanocaustic séances, 382 scarifications, 462 high-frequency current sessions, without the cure of a single patch. Many of the authors previously mentioned record good results in the disease; a recapitulation is unnecessary. My own opinion is that at least one-third and possibly one-half the cases of this obstinate affection are curable by actinotherapy.

I have treated several cases of alopecia areata, and have on the whole been satisfied with the results. I believe, however, that it is very evident that under that designation are included at least two distinct affections, one of which is circumscribed, limited to the scalp chiefly, and benign in that it tends ultimately to spontaneous recovery, while the other is progressive, affects the entire body, and is malignant in the sense that treatment seems to have but little effect on its course. All my cases were of the former variety, but I can testify to a surprisingly rapid return of the hair in the patches treated. In some cases there was a good growth of lanugo hair after half a dozen sessions. Whether these cases are parasitic or not, our knowledge of the effects of light on the tissues would lead us to expect results; and I regard these cases as especially suited for this method of treatment. A number of other investigators give favorable reports, among whom Sack,[20] Schmidt,[17] Hyde and Montgomery,[21] and Leredde[4] may be mentioned.

Actinotherapy has been lately employed in the various forms of birthmark, nevus telangiectasis, etc. We are practically helpless in these cases when they are at all extensive; and, as the face is often affected, any method that promises relief is welcome. The endovasculitis excited by the light finally leads to cicatricial contraction and obliteration of the redundant vessels. A number of the writers above mentioned report successful cases, but I have not yet had occasion to try it in a suitable one. The difficulty has been that all my cases have been infants or very young children, whom it has been impossible to keep quiet while the light has been applied. I have tried in two cases to put the child to sleep with the aid of the breast or the nursing bottle; but this is an expedient that can not be employed with the regularity and for the length of time that is required. I have, therefore, been compelled to advise the postponement of treatment until the children are older. There then would be no difficulty in applying it, and I should certainly recommend its trial in adults, more especially in extensive cases of port-wine mark and non-hypertrophic telangiectasis.

A year ago Leredde, Bie, Blacker and Sequiera, Sjögren, Helm, and others reported cures of various cases of carcinoma of the skin, epithelioma, rodent ulcer, and Paget's disease with the light. That the more recent literature of the subject is small is probably due to the fact that radiotherapy has been so extensively employed in this class of cases, and that many experimenters have been using the smaller low-amperage apparatuses, to the inefficiency of which I have already called attention. Leredde[4] and Velyaminoff[16] have employed the more powerful machines with results at least as good as those obtained from the *x*-ray. I have no results to report as yet. My cases have been either extensive ones in hospital practice, in which, for reasons already stated, the treatment could not be employed, or private ones in which the circumstances precluded the use of a method that takes time. Further and extensive experimentation is required. The treatment is rational, in view of what we know of the action of the light, but actual trial only can decide as to its efficacy.

I have had one case of sarcoma cutis under the treatment for some time. It is quite extensive, however, and only a small portion of the growth can be treated at a time. The results have been fairly good. Individual nodules and tumors show distinct retrogressive changes under the influence of the light. The method is only applicable, of course, to the cases showing a single or only a few tumors. The disseminated cases, in which large areas or the entire cutaneous surface is affected, can not be treated in this way.

Rosacea, especially when the stage of permanent vascularization has been reached, would seem to be a good field for the employment of actinotherapy for the same reasons as in nevus. Finsen reports 15 of these cases, with 4 cures, 5 marked improvements, 1 still under treatment, and the remaining 5 as having stopped treatment after a short time. Bang,[22] and a number of others, report good results. I have used it in a number of cases of acne rosacea, but found it too slow to employ alone. It was generally employed in connection with curetting and local applications. I shall endeavor to use it exclusively in the next bad case of acne pustulosa that I meet.

In the parasitic skin diseases, ringworm, favus, sycosis and pityriasis versicolor, Von Ziemssen[23] and Leredde[24] have done well with the method. The same authorities report good results in psoriasis and rhinophyma. I have not been able to do anything with it in psoriasis; and we possess other simple and effective means of treating the disease. A number of investigators have used the method in various eczematous affections, in burns and wounds, in tropical ulcer, etc., but neither their number nor their results warrant their inclusion in this report.

As regards the employment of actinotherapy for the internal organs, the only reports as yet are those of Freudenthal[25] and Williams.[26] The former has found that the light is a most important factor in combating the symptoms of hay fever, and a valuable adjuvant in the treatment of pulmonary tuberculosis. The author takes a very conservative position in the matter, as is entirely proper in view of the very limited amount of work that has as yet been done in this field.

I can only say that the method is a promising field for investigation. The bactericide and tissue stimulating action of light is proven, as is also the fact that it can be made to penetrate the body and reach the internal organs. Whether its properties can be successfully employed for the treatment of diseases of the internal organs must be left for future investigation to decide.

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[20] Münchener Med. Woch.: Monatshefte f. prakt. Derm, Oct. 1, 1902.

[21] The Journal A. M. A., Jan. 3, 1902.

[22] Berliner klin. Woch.. Monatshefte f. prakt. Derm., April 15, 1902.

[23] Ibid., June 15, 1902.

[24] Presse Médicale: Ibid., Sept. 15, 1902.

[25] New York Medical Journal, July 12, 1902.

[26] Dietetic and Hygienic Gazette, October, 1902.

EXAMINATION OF THE BLOOD OF PNEUMONIA PATIENTS FOR PNEUMOCOCCI.[*]

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THREE RIVERS, MICH.

INTRODUCTION.

The considerations which led to the present investigation are briefly as follows: In looking over the work thus far accomplished with regard to the presence of the pneumococcus in the blood of pneumonia patients, one is struck by the contradictory results of the various investigators. When Prochaska[28] [33] finds the organism each time in a large number of cases, irrespective of the outcome of the disease, while men like Kühnau,[10] in Germany, and James and Tuttle,[18] in this country, find it rarely and only in fatal cases, the need of more research work on the subject is clearly to be seen. A second reason for this work which needs no emphasis is its value from a diagnostic point of view. If the pneumococcus can be recovered from the blood of pneumonias, as can the plasmodium of Laveran in malaria, diagnosis, prognosis and treatment are all affected.

The immediate objects of the present work were four; to determine:

1. Are pneumococci to be found in the blood at any time?
2. With what frequency may they be found in all cases?
3. What is the simplest method of finding them?
4. What is the prognostic value of positive results if such occur?

METHODS OF EXPERIMENTATION.

Instruments.—The instruments used for drawing blood in work of this description vary from the uncleanly wet cup of Petruschky[8] to the lancet of Schabad[10] and Kühnau.[16] Sittman[9] used a glass canula, which instrument was also employed by Prochaska.[28] White[21] used a syringe. In the present work a glass canula was employed, marked in cubic centimeters to register the amount of blood taken. One end was drawn to a tube which was ground to fit a platinum needle about six cm. long; the other end to accommodate a rubber bulb supplying sufficient suction to draw up the blood to any height desired. This instrument, purchased of Leitz, was found very satisfactory.

Media.—In the first few experiments litmus milk and blood serum were employed, as well as bouillon. Cole[31] of Johns Hopkins used sterile litmus milk and considered it superior to bouillon on account of the early acidification of the medium. Blood serum was also used by a few investigators; but the majority of workers employed bouillon, and hence this medium would be chosen for purposes of comparison and uniformity, if for no other reason. The ease with which it is prepared is another argument in its favor, and any lingering doubts as to its superiority would be dissipated by the warm recommendation of A. Fraenkel. For the above reasons, after the first few experiments, bouillon was used throughout the work. The bouillon was autoclaved at 110 C., and one of the flasks tested afterward for alkalinity, etc.

Technic.—Any attempt to cultivate bacteria from the blood is worse than useless unless done under the strictest aseptic precautions. The above observation may perhaps seem unnecessary in this connection, yet in reading over some of the work referred to above, one may well doubt its aseptic character on account of the technic employed. In many cases blood was taken from the finger—a point of technic which renders these results open to suspicion, to say the least. Kühnau[10] established this point experimentally in 18 persons by taking blood from the arm and finger of each case. Of the 18 fingers there were 12 contaminations, while not one occurred from the arm, making a convincing argument against the finger as a location for drawing blood.

The technic of the present work was as follows: The operator's hands were prepared by scrubbing for ten minutes with green soap and sterile water. They were then soaked in bichlorid, washed with alcohol, and finally with ether. In the meantime, an assistant scrubbed the field at the bend of the elbow, and put on a pad soaked with bichlorid. Then he exerted sufficient pressure on the upper arm to make the veins below stand out prominently. The operator then completed the preparation of the patient's arm by a rub with alcohol and afterward with ether. The sterilized instrument was then introduced into the most prominent vein in the sterile field. This was usually the median basilic or median cephalic, though the superficial median and radial veins were occasionally chosen on account of their prominence. The needle was introduced into the vein perpendicular to its surface with one firm push, causing a pain so inconsiderable as to require no local anesthetic. As soon as the vein was entered the blood appeared in the glass canula, being drawn up by the suction of the bulb. When a sufficient amount was obtained it was put into the flask of bouillon, gently agitated to mix the culture and allowed to grow in the incubator at 37 C.

REPORT OF BLOOD EXAMINATIONS.

The series below is made up of 50 cases, divided into two groups of 25 cases each. The basis of this division is simply a difference in the proportion of blood to bouillon.

Group 1.—In the first 25 cases, from 8 to 9 c.c. of blood were used to 50 c.c. of bouillon, making a dilution of about 1 to 6. Of these 25 cases, only 3 showed the pneumococcus, while the other 22 were negative.

The three positive cases were as follows:

Case 1.—A Greek at Wesley Hospital, aged 34. History of cold, followed by a chill, fever, and, subsequently, severe pain under the right nipple. Examination on admission showed dullness over entire right chest and moist râles. Abundant rusty sputum which contained pneumococci. Blood examination was made two days after admission, at which time the temperature was 102.6 F. (39.2 C.), pulse 80 and respiration 26. The blood was grown on bouillon in the incubator at 37 C. for two days when a brick-dust precipitate appeared at the bottom of the flask. Microscopic examination showed a small round or oval coccus with lance-shaped extremity occurring in pairs or singly, less often in small groups. Streaks on agar yielded the typical transparent, dewy growths of the pneumococcus, which stains showed in pure culture. On the afternoon of the day on which the blood was taken, the patient's temperature fell to normal. The patient was discharged cured one week later. In this case the pneumococci were found in the blood just before the crisis.

Case 2.—H. S., male, aged 18 years, entered Wesley Hospital with dullness on right side, pain, etc., and was diagnosed as pneumonia. The blood examination was made at 2 p. m. the following day with a temperature of 102.6 F. (39.2 C.), pulse 92 and respiration 24. Growth on bouillon and subcultures on agar showed pure colonies of the pneumococcus. Patient recovered.

Case 3.—Mrs. M., aged 52 years, admitted to hospital with a temperature of 106 F. (41 C.), pulse 152 and respiration

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[*] Work done at Professor Zeit's laboratory, Northwestern University, Chicago.

SUMMARY OF GROUP 2 (25 CASES).

No.	Name, Age and Sex.	Hospital.	Clinical Condition.	Death or Recovery.	Result.	Remarks.
1	A. A., 24, Male.	Cook County .	Temp. 99.6, pulse 108, resp 20	Died.	Negative.	Blood taken during pseudo-crisis.
2	E. M M , 24, Male.	Cook County .	Temp. 102, pulse 96, resp 32	Recovered.	Positive. .	Many pneumococci.
3	W. E., 27, Male	Cook County .	Temp. 105, pulse 116, resp. 30.	Recovered.	Negative. .	
4	M. L., 33, Female	Charity	Temp. 102.5, pulse 120, resp 30. . . .	Died.	Positive .	Died following day.
5	O. P., 18, Male . .	Wesley.	Temp. 101.9, pulse 80, resp. 20.	Recovered.	Positive .	General infection.
6	D. P. S., 45, Male.	Cook County .	Temp. 103, ax., pulse 120, resp. 46 . .	Died. .	Positive .	Died following day.
7	J. C., 40, Male. . .	Cook County	Temp. 105, pulse 120, resp. 36.	Died. . . .	Positive. .	
8	W. M., 42, Male. .	Cook County .	Temp. 102, pulse 120, resp. 40.	Died. . . .	Positive .	
9	J. D., 52, Male. . .	Cook County .	Temp. 97.2, pulse 84, resp. 24.	[illegible]	[illegible]	Senile form.
10	H., 45, Male . . .	Wesley.	Temp. 101, pulse 84, resp. 38	[illegible]	[illegible]	Scanty growth.
11	E. D., 32, Male . .	Wesley.	Temp. 100, pulse 70, resp. 26	[illegible]	[illegible]	Pneumococcic otitis media.
12	H. J., 35, Female .	Wesley.	Temp. 102.4. pulse 107. resp. 26. . . .	[illegible]	[illegible]	General infection.
13	H. P., 30, Male . .	Cook County .	Temp. 103.2, pulse 130, resp. 80. . . .	[illegible]	[illegible]	Took oxygen during examination.
14	J. C., 24, Male. . .	Wesley.	Temp. 102 4, pulse 110, resp. 28. . . .	[illegible]	[illegible]	
15	N. C., 22. Female .	Wesley.	Temp. 102, pulse 128, resp. 34	[illegible]	[illegible]	First examination was negative, second positive.
16	G. A., 40 Male . .	Wesley.	Temp. 100, pulse 80 resp. 38	[illegible]	[illegible]	
17	P. R., 50, Male . .	Cook County .	Temp. 100.4, pulse 104, resp. 32 . . .	[illegible]	[illegible]	
18	G. W., 22, Male . .	Cook County .	Temp. 101.2, pulse 92, resp. 36	Recovered.	Positive .	
19	McV., 55, Male .	Cook County .	Temp. 100.6, pulse 104, resp. 32. . . .	[illegible]	[illegible]	Scanty growth.
20	W. H., 36, Male. .	Cook County .	Temp. 103, pulse 128, resp. 48.	[illegible]	[illegible]	Alcoholic.
21	H. E., 45, Male . .	Wesley.	Temp. 101, pulse 96, resp. 30	[illegible]	[illegible]	Following the crisis.
22	P. D., 40, Male . .	Mercy. . . .	Temp. 97.6, pulse 72, resp. 30	[illegible]	[illegible]	
23	H. C , 47. Male . .	Cook County .	Temp 99.8, pulse 112, resp. 36	[illegible]	[illegible]	Crisis previous day.
24	J. K., 27, Male . .	Cook County	Temp. 102.2, pulse 128, resp. 48	Died.	Negative. .	Alcoholic.
25	J. E., 47, Male . .	Cook County .	Temp. 103, pulse 150, resp. 40	Died. . .	Positive. .	

48. Dullness at first in the left lower lobe, which almost cleared up, when the left upper lobe became involved and friction sounds appeared. There was a constant delirium and a persistently high temperature of from 103 to 106.6 F. (38.5 to 41.5 C.). The blood examination was made with a temperature of 103 F., pulse 152, and respiration 36. On the third day the bouillon culture showed the pneumococcus in abundance. Confirmed by cultural controls. Two days later the patient died from heart failure with a temperature of 108 F.

Owing to lack of space, the negative cases will be omitted. The positive results constituted about 12 per cent. of this group of 25 cases. One of the positive cases died and 2 recovered. Of the negative cases, 11 died and 11 recovered.

Group 2.—Although the results obtained in this series of cases were found to agree with those of many investigators in the same field, still the question arose as to whether the proportion of blood to bouillon might not be so high as to inhibit the growth of the organism except in favorable cases. It is not necessary here to enter into a discussion of Ehrlich's side-chain theory, nor the action of the side-chains on the pneumococcus. But with this question in view it was suggested by Dr. Zeit that a second series of 25 cases be examined in exactly the same manner as the first, except that the proportion of blood to bouillon be lower, and results of the two groups be compared. Accordingly, in the second group, one part of blood was employed to fifteen or twenty parts of bouillon. A tabulation of the results of this second series is in the accompanying table, and the details are given in the following histories:

Case 1.—August A., of German nationality, aged 24. Trouble began with a chill and pain in the right side, followed by fever and rusty expectoration. Physical examination showed a consolidation of left lower lobe. Admitted to hospital with a temperature of 103 F., pulse 132 and respiration 30. Blood was taken for examination during what proved to be a pseudocrisis, with a temperature of 99.6 F., pulse 108 and respiration 20. The patient died. Examination of bouillon cultures and streaks on agar was negative.

Case 2.—Ernest McM., aged 24, a bicycle builder, was admitted to the hospital with a temperature of 100 F., pulse 136 and respiration 30. The temperature averaged 101 F. that day and 101.2 F. on the next, sometimes going to 102. Examined the following day with a temperature of 102, pulse 96 and respiration 32. The patient recovered. Examination of the bouillon cultures showed many pneumococci. Streaks on agar gave pure cultures without the capsule. Stains of the first generation by Welch's capsule stain showed remains of these structures, which disappeared entirely in the later generations.

Case 3.—William E., printer, aged 27, admitted to hospital with a temperature of 97, pulse 120 and respiration 30. The same evening his temperature rose to 102, pulse 120, respiration 30. The night before admission patient had a severe chill, followed by fever and cough, with pain in the right axilla. Rusty sputum. History of pneumonia one year before. Physical findings of lobar pneumonia. Examined, with temperature of 105, pulse 116, respiration 30. The patient recovered. Examination of bouillon cultures and agar streaks showed no pneumococci.

Case 4.—Mrs. L., aged 33, admitted to hospital with a temperature of 103.2, pulse 112 and respiration 32. History of chill with temperature. Physical examination showed consolidation of the right upper lobe, extending to the middle lobe. Blood was taken with temperature of 102.5, pulse 120 and respiration 30. Examination of the bouillon cultures showed many pneumococci, some encapsulated and others not. The organism was mostly in diplococcus arrangement with a few chains of four and five. In the agar were many nests of pneumococci with fewer capsules, while in the later generations no capsules appeared. The patient died following examination.

Case 5.—Oresti P., Italian, aged 18. Entered the hospital unconscious and vomited all night. Red blood count showed 4,352,000 and the white, 16,000. On admission the temperature was 101.4, pulse 90, respiration 40. The following day the temperature was 103.2, pulse 100. Shortly after admission the patient complained of pain in the back of the neck. Puncture was made by a hospital interne and growths of the cerebrospinal fluid showed pure cultures of the pneumococcus. This led to examination of the blood. At this time (4 days after admission) the temperature was 101.9, pulse 80, respiration 20. Direct smears on cover glasses showed no bacteria. Cultures of blood on bouillon were found to contain many pneumococci after the second day of growth. These were mostly without capsules, although a number still retained them. Nearly all were in the form of diplococci, with a few scattered chains. Growth on agar showed the characteristic dewy form. Microscopic examination showed pure cultures of the diplococcus without capsules. As the patient showed no physical signs of lung involvement, the blood was examined for the second time. Cultures in every way identical with the first resulted after two days' growth. The patient recovered.

Case 6.—D. P., aged 45, admitted to hospital with temperature 101.8, pulse 124, respiration 48. Rusty sputum; pain in the side, and physical signs of lobar pneumonia. Examined with temperature 103 ax., pulse 120, respiration 46. Patient died the following day. Numerous pneumococci were found in the bouillon culture, and streaks on agar yielded pure cultures of the diplococcus.

Case 7.—John C., laborer, aged 40. Admitted with temperature of 102, pulse 102, respiration 26. Vomiting, broncho-vesicular breathing, and bronchial breathing over small area over vertebral border of right scapula. Bronchophony. Moist râles at fourth rib. Consolidation over infraspinous fossa of scapula on the right side. Examined with temperature 105, pulse 120, respiration 36. The pneumococcus of Fraenkel was found in pure culture. Patient died.

Case 8.—William M., laborer, aged 42. Admitted to hospital with history of chill three days before, followed by fever. Pain in the right side, aggravated by coughing and deep breathing. Patient was an alcoholic who went on periodical drinking bouts. Physical examination showed crackling râles at end of inspiration; resonance diminished on posterior aspect of left side. Later bronchial breathing, bronchophony and dullness on right side. On admission, temperature 102.2, pulse 120, respiration 30, which was the average condition of the patient for three days. Patient examined on fourth day after admission, with temperature 102, pulse 120, respiration 40. He died two days later. Direct smears of the blood on cover glasses showed no bacteria present. Cultures of the blood grown in the usual manner yielded positive results.

Case 9.—James D., laborer, aged 52. Admitted to hospital with temperature of 97.2, pulse 84, respiration 24. Although this patient had all the physical signs of pneumonia, with consolidation of entire right lower lobe, he ran almost no temperature. Apparently of the senile variety. At the time of examination, five days after admission, the temperature, pulse and respiration were practically normal, as they had been all week. Direct smears of the blood on cover glasses were negative. Growths of the blood on bouillon for two days yielded a scanty pure culture of the pneumococcus, from which confirmatory generations were grown on agar. The patient slowly recovered.

Case 10.—Mr. H., laborer, aged 45. Admitted to hospital with a temperature of 102.6, pulse 84, respiration 38, and history of chill, dyspnea, pain in the right side and rusty sputum. Examination showed a small area of consolidation on the right side. Leucocytes 11,400. Examined three days after admission, with temperature 101, pulse 84, respiration 38. On the following day pneumococci were found in the bouillon in pure culture.

Case 11.—Eduard D., aged 32, foreigner. On admission, temperature 104, pulse 90, respiration 32. Physical signs of consolidation. Rusty sputum showing abundant pneumococci. Had an otitis media suppurativa, with discharge from both ears, smears from which showed pneumococci. Streaks of this pus on Loeffler's blood serum yielded pure cultures of the micrococcus pneumoniæ. Culture of the blood was made on the fourth day after admission, with a temperature of 100, pulse 70, respiration 26. Examination the following day showed the pneumococcus present in pure culture. Patient recovered partially and then had a relapse. At this time his blood was examined a second time with results identical with those recorded above.

Case 12.—Mrs. Hulda J., aged 35. Her case was not examined primarily for this series, but has been put in because of the later developments. She had what was thought to be an irregular typhoid or paratyphoid running some temperature for several weeks. The Widal could not be obtained in spite of repeated trials. No plasmodia could be found. The temperature continued irregular up to the time of examination, on which date the temperature was 102.4, pulse 107, respiration 26. No pneumococcemia had been suspected, but blood cultures were made as an experiment. On the following day cultures appeared which were so characteristic of the pneumococcus that examination was made microscopically at once. A few encapsulated pneumococci were found in each field. Many tests were made to rule out accidents. Streaks on agar showed many diplococci under the microscope. In neither medium was any other organism found. On the following day the feces were examined. Among the ordinary bacteria present were large numbers of encapsulated pneumococci; rarely in chains of three or four; nearly always in diplococcus arrangement.

Case 13.—Harry P., aged 30. Admitted to hospital with temperature of 102, pulse 136, respiration 32. History of chill six days before entrance, pain in the side, anorexia, headache, etc. Uses alcohol moderately, smokes to excess. Physical signs of lobar pneumonia of right chest. Temperature continued high until day of examination, three days after admission, on which date temperature was 103.2, pulse 130, respiration 80 (patient was taking oxygen). Bouillon remained sterile. Streaks on agar yielded no growth.

Case 14.—Joe C., aged 24, entered hospital with temperature of 102, pulse 138, respiration 30. Examined two days later, with temperature 102.4, pulse 110, respiration 28. History of pain in right side, increased by coughing. Chills. Constant cough. Pneumococci in the sputum and physical signs of pneumonia. Cultures of the blood on bouillon yielded the pneumococcus after two days' growth. Confirmed by pure cultures on agar.

Case 15.—Miss Nellie C., aged 22. Admitted to hospital with temperature of 103.2, pulse 120, respiration 42. History of chill followed by pain in the side. Many pneumococci in the sputum, and physical signs of pneumonia. Blood examination was made two days later, with temperature of 102, pulse 128, respiration 34. Cultures remained sterile. Four days after examination, she developed a pneumococcic arthritis, her temperature remaining high. A second examination of the blood was then made. This time many pneumococci were found in pure culture. Streaks on agar confirmed results of the bouillon. The patient slowly recovered.

Case 16.—George A., Greek, laborer, aged 40. Contracted bronchitis after sleeping in a tent. Eight days later had a severe chill. Entered hospital with a temperature of 100.4, pulse 76, respiration 20. Examination showed physical signs of pneumonia. Blood culture was made four days later, with a temperature of 100, pulse 80, respiration 38. Examination was positive.

Case 17.—Pat R., laborer, aged 50. Admitted to hospital with temperature of 101.4, pulse 104, respiration 40. Physical signs of lobar pneumonia. Many pneumococci in the sputum. On examination, the temperature was 100.4, pulse 104, respiration 32. Culture media remained absolutely sterile.

Case 18.—Gus W., waiter, aged 22. Admitted to hospital with temperature of 100, pulse 108, respiration 28. History of chill three days before, followed by pain over the entire body; cough which grew worse, and rusty sputum. An alcoholic. Physical signs of lobar pneumonia. Examined five days after admission, with temperature of 101.2, pulse 92, respiration 36. Cultures showed a few pneumococci in each field. Agar streaks were confirmatory.

Case 19.—Simon McV., laborer, aged 55. Admitted to hospital with temperature of 100, pulse 88, respiration 28. History of chill, followed by pain in the right side. Physical signs of consolidation of the right upper lobe. On examination the following day, temperature was 100.6, pulse 104, respiration 32. Blood showed a few pneumococci after two days' growth. The patient recovered.

Case 20.—William H., laborer, aged 56. On admission, temperature was 104, pulse 132, respiration 30. History of chills, fever, pain in the side, anorexia, rusty sputum. Drank whisky to excess. Physical signs of consolidation of the left lower lobe. Patient was examined two days after admission with a temperature of 103, pulse 128, respiration 48. Cultures showed a few pneumococci present in each field. The patient died.

Case 21.—Herman E., aged 45. Admitted to hospital with temperature of 101.8, pulse 110, respiration 40. History of chill, pain in the right side, and cough. Physical signs of a lobar pneumonia. Drinks alcohol regularly but moderately. Examined five days after admission, with temperature 101, pulse 96, respiration 30. Culture was tested two days later and found to contain a few pneumococci. Agar streaks were positive. The patient recovered.

Case 22.—Patrick D., a driver, aged 40. Admitted to hospital with temperature of 100.4, pulse 94, respiration 26. Physical signs of consolidation of left lower lobe. Blood was taken for examination following crisis, with a temperature of 97.6, pulse 72, respiration 30. Examination of the culture two days later showed many pneumococci. Patient recovered.

Case 23.—Harry Van C., stableman, aged 47. Admitted to hospital with temperature of 101.2, pulse 120, respiration 50. History of chill, cough and pain in the right side. Had physical signs of a right lobar pneumonia. The patient was examined the third day after admission, at which time his temperature was 99.8, pulse 112, respiration 36. Cultures of the blood on agar and bouillon remained sterile. The patient recovered.

Case 24.—John K., colored, aged 27. Admitted to hospital with a temperature of 101.6, pulse 136, respiration 36. History of chill, shortness of breath, etc. Physical signs of right lower lobe pneumonia. The temperature came down nearly to normal and then went up again. Blood was taken during this relapse, with the temperature at 102.2, pulse 128, respiration 48. The cultures on bouillon and agar remained absolutely sterile. The patient died.

Case 25.—John E., aged 47, was admitted to hospital with temperature of 103, pulse 150, respiration 40. Presented physical signs of a pneumonia of the left lower lobe. Cultures were made on the day of admission. Examination the following day showed many pneumococci. Agar streaks were confirmatory. The patient died.

RESULTS.

The present investigation started with four questions:

1. Can pneumococci be found in the blood at any time? This must be answered in the affirmative, because of the results secured in our investigations and in those of others.

2. With what frequency may they be found in all cases? In the first series there were 3 positives in 25 patients, or 12 per cent. of the entire number. In the second series, with a method more favorable to the growth of the organism, there were 19 cases, or 76 per cent., with positive results. Of the 6 negative cases, 2 might be considered unfavorable for the recovery of the *pneumococcus* from the blood on account of the condition of the patient at the time of the examination. Case 1 was negative, with a temperature of 99.6 during a pseudo-crisis, and Case 23 was negative, with a temperature of 99.8, after a crisis the previous day. It is possible that, had a blood examination been made while the temperature was high, the pneumococcus might have been isolated. On the other hand, Cases 9 and 22 were positive with a subnormal temperature, showing that a high fever is not absolutely essential in pneumococcemia. In the other 4 negative cases we can offer no explanation. Nevertheless, from the results of this investigation, we are inclined to agree with A. Fraenkel[30] and Prochaska,[25] that the pneumococcus may be found in the blood of every pneumonia patient, and, with Silvestrini and Sertoli,[23] attribute negative results to unfavorable conditions for growth or failure in technic.

3. What is the simplest method of finding them? The technic has been described above. We believe the best results are obtained by taking large quantities of blood (from three to six c.c.) with a dilution of over one to twelve of a liquid-culture medium, preferably bouillon.

4. What is the prognostic value of positive results? We believe that the mere finding of the pneumococcus in the blood is of no prognostic importance whatever. Of the 19 positive cases in the second series, 69 per cent. recovered and 31 per cent. died, while of the negative cases, 33 per cent. recovered and 67 per cent. died. Hence, according to our series, no worse prognosis, at least, attaches to a positive than to a negative finding. So many of our cases, however, were associated with alcoholism that these prognostic percentages hardly represent the average. But in our cases when the organism was found in the blood of a patient who subsequently died, it was invariably present in large numbers, while, with two exceptions (Cases 2 and 15, both severe infections), few pneumococci were found in those positive cases which recovered. According to our results, then, the mere finding of the pneumococcus has a diagnostic, but not a prognostic bearing, while the finding of large numbers of pneumococci is of grave prognostic import.

I wish to thank the visiting physicians and the resident staff of the Cook County, Wesley, Mercy, St. Luke's and Charity hospitals for many kindnesses, and Dr F. Robert Zeit of Northwestern University for many valuable suggestions as well as excellent advice throughout the work.

BIBLIOGRAPHY.

The following résumé comprises practically all that has been done up to the present time on the organism in the living blood:

1. Telamon (Le Progrès Medical, 1883, No. 51) examined the blood in 25 cases of pneumonia. He found the pneumococcus twice, both times but a few hours before death. Tests of the same cases the day previous were negative.

2. Friedlander (Fortsch. der Medicin, 1884. ii, p. 333), examining the blood of 6 cases of acute pneumonia, found the pneumococcus but once.

3. Netter (Arch. Gen. de Med., 1887) reported one positive case which was complicated with meningitis and peritonitis.

4. Befanti (Riforma Medica, 1890, No. 37. Referat Baumgarten's Jahresbericht, 1890, p. 63) reported that he found the diplococcus of pneumonia present in the blood of many (does not state the number) examined by him during life.

5. Boulay (Des affections à pneumoc. indep. de la pneumonie franche, Paris, 1891. Ref. Kraus. Zeitschr. f. Heilk., 1896, p. 117) had a series of 4 cases with 2 deaths, from the latter of which he reported positive results. The 2 recoveries showed no pneumococci.

6. Goldschneider (Deut. med. Wochensch., 1892, No. 14) recorded 2 positive cases with one death in a complicated case.

7. Canon (Deutsche medicinische Woch., 1893, p. 1038) in an investigation covering many varieties of sepsis, reported one case of pneumococcemia with jaundice in which blood cultures on agar showed from 10 to 15 colonies of pneumococci.

8. Petruschky (Zeit. für Hyg. und Infct., 1894, vol. xvii, p. 59) in a series of cases had 4 pneumonias, one complicated with erysipelas. Examination of the blood was in all cases negative.

9. Sittman (Deut. Archiv f. klin. Med., 1894, p. 327), had 16 cases of pneumonia with positive results in 6 cases, 5 of which were complicated with lesions in other organs, 4 of the positive cases were fatal, while of the 10 negative cases 9 recovered and one died. The positive results were obtained from one to seventeen days before death in the fatal cases.

10. Schabad (Centralbl. f. Bact., 1896, vol. xix, p. 991) in a case of pneumococcemia involving practically all the organs of the body, obtained positive results from agar growths of the blood. The first generation was encapsulated, the second not.

11. Kraus (Zeitschr. f. Heilk., 1896, vol. xvii, p. 117) in a series of 12 cases reported that the blood showed pneumococci in only one instance. This case was complicated with erysipelas. He had growths (contaminations) in all 12 of his cases.

12. Grawitz (Charité-Annalen., 1896, vol. xiv) reported one positive case with death.

13. Nicolaysen (Am. pnevmokokkens Lokalisationer udenfor Lunegen. Norsk Magazin for Laegevidenskaben, 1896, p. 374) reported a positive finding in a pneumococcemia 2 days before death.

14. Duflocq (Lecons sur les bactéries pathogènes, 1897, pp. 147-8. Ref. Beco. Revue de Médecine, 1899, p. 461) in 1896 reported one positive case with death.

15. Kohn (Deut. med. Woch., 1897, No. 9) had 32 cases, with positive results in 9, of which 7 died and 2 recovered. His positive results were obtained only a day or two before death in the fatal cases. Three times the results were negative and the patient died, but one of these deaths was due in an old man to his rising from bed too early and suffering a heart collapse.

16. Kühnau (Zeitscht. für Hyg. u. Infctsktn., 1897, vol. xxv, p. 492) examined the blood of 9 severe uncomplicated cases of pneumonia. In only two cases, both of which were fatal, did he find the diplococcus. Another fatal case was negative. The *Staphylococcus albus* was found 7 times and the *aureus* once.

17. Roemheld (Mün. med. Wochenschr., 1897, p. 603) had a pneumococcemia from which during life he drew blood on glycerin-agar with negative results.

18. James and Tuttle (Presbyterian Hospital, N. Y., Reports, 1898, vol. iii, p. 44) examined the blood in 12 cases of pneumonia. Two of these were fatal, the remaining ten recovered. No pneumococci were found in the entire series of inoculated tubes.

19. Holst (Norsk Mag. for Laegevid., 1898, No. 11) in a series of 23 pneumonias, obtained the pneumococcus in two and a staphylococcus in one. Of the 23 cases 4 died and the others recovered.

20. Preble (The Journal A. M. A., Aug. 19, 1899,) reported 4 observations, in 3 of which he obtained the pneumococcus in cultures and in all by direct smears of the blood. Two died and two recovered.

21. F. W. White (Jour. Experimental Med., 1899, p. 425) reported 19 cases, 3 of which were positive; all fatal. Seven of the negative cases were also fatal.

22. Sello (Zeitschr. f. klin. Med., 1899, p. 112) reported a series of 48 cases after Sittman's method. Of these 36 were negative with 27 recoveries and 9 deaths. Twelve cases were positive with 2 recoveries and 10 deaths.

23. Silvestrini and Sertoli (Riforma Medica, 1899, No. 16, Ref. Centralbl. f. innere Med., 1900, vol. xxi, p. 135) out of 16 cases reported the diplococcus present in 15; and in 24 investigations, present 22 times. The authors are inclined to attribute negative results to failure in technic.

24. Beco (Revue de Médecine, 1899, p. 461) had 50 cases with 11 positive findings. Twenty-nine recovered, of which 2 were positive; and 21 died of which 12 were negative and 9 positive. One of Beco's cases showed the Friedländer pneumobacillus.

25. Prochaska (Centralbl. f. innere Med., 1900, No. 46) reported his first series of 10 cases, all of which were positive. He had 4 deaths and 6 recoveries after long periods. No other colonies were found. The cases were not selected.

26. Lenhartz (Man. of Clinical Microscopy. Ref. Burt, Amer. Med., April, 1902) in 1901 reported 20.7 per cent. of positive results in a continuous series of 30 pneumonias.

27. Lenhartz (Muench. med. Woch., 1901, No. 28) found the pneumococcus 3 times, streptococcus 8 times, staphylococcus pyogenes aureus 4 times and the albus once in 16 cases of pneumonia with endocarditis.

28. Prochaska (Deutsch. Archiv f. klin. Med., vol. lxx, p. 559) in 1901 reported 40 additional cases of fibrinous pneumonia, in all of which micro-organisms developed, and, in the great majority of cases, the pneumococcus. In two instances pneumococci were not found, but micrococci in chains, which Prochaska did not know whether to regard as irregular forms of pneumococci or as separate germs. Eight of the 40 cases died and the rest recovered In none of the cases was there contamination from the skin or from the air.

29. Landi and Cionini (Deut. med. Woch., 1901, p. 296. v. reported a series of 27 pneumonias in which investigation of the blood during life gave positive results.

30. A. Fraenkel (Deut. med. Woch., 1901, Nov. Ver.) in speaking of the pneumococcus, in the blood said, "I have myself very often obtained cultures in the blood. One finds them when he takes large quantities of the blood (5 to 10 c.c.) and a liquid medium like bouillon, in every case. They seem to multiply better in a liquid culture medium. In other words, since we no longer take 1 c.c. of blood for our experiments, but 6 to 8 c.c., we find the pneumococcus in the blood in every instance.

31. Cole (Johns Hopkins Hospital Bulletin, June, 1902) made cultures in 30 cases of pneumonia, all lobar except one, which was a pneumococcemia with arthritis and meningitis. Of these 30 cases 9 were positive, with death in every instance. Four of the negative patients died also.

32. Herrick (Amer. Jour. Med. Sci., July, 1902) reported a case of pneumococcus arthritis in which puncture of the median basilic and growth on agar was negative.

33. Prochaska (Deut. med. Woch., 1902, No. 21) reported his third series of cases. He had 4 pneumonias, in all of which pneumococcus was found. He had 3 recoveries and one death.

34. Baduel and Gargano (Gazzetta degli ospedali e delle cliniche, Jan. 4, 1903,) reported an epidemic of pneumonia involving 8 children in one house, many of whom had complications. The pneumococcus was found in the blood of all these cases. Method not stated.

35. Rosenow (Medicine, June, 1903) reported cultures from 83 cases, with positive results in 77.

THE USE OF SILVER FOIL TO PREVENT ADHESIONS IN BRAIN SURGERY.

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The formation of adhesions involving the cortex of the brain and its covering membranes is the rock on which the ultimate success of many otherwise brilliant and successful operations on the brain is wrecked. The harmful influence of posttraumatic and postoperative adhesions of the surface of the brain in the production of epilepsy is universally recognized, and many suggestions have been put to application by the surgeon to prevent this occurrence, but only too often do we find that after a brilliant localization of a brain tumor or other cortical lesion by the neurologist, and a faultless operation by the surgeon, the terrible fits after a momentary pause recur with all the old vigor and frequency. It is unfortunately true that operative treatment in the large majority of the cases of epilepsy due to distinct local lesions is a failure, owing to the formation or re-formation of adhesions. The adhesions which are the most harmful are those which take place between the dura and the brain. Concerning these, Schär[1] says: "One may be able to elevate a depressed bone, remove a cyst or a connective tissue scar, or a mass which is pressing on the brain, but on the other hand, it is useless to divide adhesions between the dura and pia, or pia and brain, because the same immediately after the operation inevitably re-form."

Fortunately not all surgeons entertain such a hopeless view of the subject, and many of them have devised plans for preventing the re-formation of the adhesions, which are frequently successful. When a bone flap is formed which can be replaced, it has been suggested that the dura be removed entirely over the affected area, or that a flap of dura be brought out and turned over on the outer surface of the bone flap when the latter is replaced, after the methods of Keen and Chipault. These methods, which have apparently been followed by success, permit the brain or its covering pia to lie in direct contact with the inner surface of the bone, to which adhesions are not so likely to form. As a firm dura, however, is the best means of preventing the formation of that very unpleasant complication of brain surgery, namely, hernia cerebri, it is very desirable to retain this membrane whenever possible. It has, therefore, been proposed to interpose certain substances between the dura and the brain, in the hope that thereby the formation of adhesions might be prevented.

Beach,[2] in 1890, first suggested the use of gold foil for this purpose, and two years later used it in a case of epilepsy in which convulsions had returned after an operation done two years previous. Improvement followed the use of the gold foil at the second operation. Following this, cases in which gold foil was used were reported by Estes,[3] Oliver,[4] Summers,[5] Wier and others. Oliver's case, one of epilepsy, had been operated on before and some bone removed. Convulsions recurred and a second operation was done, adhesions separated and a plate of gold foil interposed. The patient had no more convulsions up to the time of his death, which occurred suddenly at the end of four months. At the autopsy the gold plate was found in position, and had served its purpose in that it had prevented the formation of adhesions. Woolsey[6] reports a case in which he used gold foil. The case was one of traumatic epilepsy. and had been operated on previously, at which time a piece of thickened dura about two inches in diameter was removed. As no improvement had taken place at the end of ten days, the wound was reopened and "a piece of gold foil was inserted between the scalp and the brain. The gold foil was sterilized by heat, but unfortunately it came in paraffined paper, and some of the melted paraffin had adhered to its surface. There were probably some small tears made in separating the paraffin from the paper." The patient was in perfect health for several months, when his attacks recurred. Dr. Woolsey reopened the wound and found that the gold foil had not prevented adhesions of the scalp to the brain. The gold foil had broken up into particles and between them newly formed fibrous tissue had grown, forming a layer of considerable thickness, embedding the gold foil and forming firm adhesions between the scalp and the brain. Dr. Woolsey was unable to say whether this would have been the result had the gold foil been entirely intact. It was the thickest foil kept in stock by a large dental manufacturing establishment. Freeman[7] says: "I possess a specimen of foil (gold) which I placed in the trephine opening in the posterior fossa during the course of an operation for cerebellar tumor. The patient lived about three months, and during that time considerable new connective tissue had formed." No details of this case are given. He does not state the nature of the tumor, whether it was removed or not, where the new connective tissue was formed, nor where the foil was placed.

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[1] Arch. klin. Chir., lix, 670.
[2] Bost. Med and Surg. Jour., April 3, 1890. and March 25, 1897.
[3] The Journal A. M. A., April 1, 1896.
[4] Ibid., May 30, 1896.
[5] Med. Rec., April 24, 1897.
[6] Ann. Surg., 1897, vol. xxv, 630.

The use of thin rubber tissue as recommended by Abbe has been tried by a number of surgeons, and with apparent success by some. McCosh[8] says: "One patient on whom I operated thirty months ago carries without signs of irritation a piece of this tissue on the surface of his dura. That it may, however, act as a foreign body is shown in Case 13, and there is no proof that the so-called 'life' should be longer in its new home than it would be in the external world." The case mentioned was one in which a piece of rubber tissue had been inserted. The patient did well for about twenty months, when his convulsions recurred. Another operation was performed. "A scalp flap was lowered over the old trephine opening, which was found filled with dense connective tissue, to which the scalp was intimately adherent. A layer about one-sixteenth of an inch thick was dissected off. Under this was felt a mass of apparently cicatricial tissue, very hard except near the center, where there was a roundish nest consisting of soft, almost granulation-like tissue, in which were seen blackish particles, which were found to be scraps of rubber tissue amalgamated with the soft connective tissue into a mass the size of a small cherry. This was cut out by scissors."

The case was then treated by placing over the brain a piece of platinum foil about the thickness of a sheet of note paper. Primary union and at the end of eight weeks he had no return of attacks.

Dr. Abbe,[9] who performed the first operation on this case and introduced the rubber tissue, says that "he was not surprised that development of granulations about the rubber had ultimately broken it up and enveloped it. It simply showed nature's effort to expel it when suppuration had once started. No argument could be based on this case as to the behavior of tissue in non-suppurative cases."

In 1898, Freeman[10] recommended the lining membrane of an egg in place of the inorganic substances. He tried the membrane in two experiments on animals, but had not used it on the human subject. In 1900, Greer[11] used egg membrane in an operation on a lad who eleven years before had sustained a compound fracture of the skull and who had suffered from epilepsy since. The skull opening, which resulted from the fracture, was found filled with dense tissue. In separating this tissue some brain substance was removed. Two pieces of eggshell membrane were placed—one between the brain and the skull and the other outside the skull. The scalp was then replaced and primary union occurred. Four months after the operation the old scar broke open and left a small hole in the scalp, through which the eggshell membrane could be seen. This was pulled out in its entirety. It was still tough and showed no apparent change in its structure. The wound then closed. The subsequent history of the case is not given, so we are left in doubt whether any good was accomplished by the operation or not.

The question of closing defects in the bone by celluloid or thick gold or silver plates or by plastic operations, is not under discussion, but simply the question of the prevention of adhesions between the brain and its membranes or the bone.

The general principle of the introduction of some foreign substance has been tried in a sufficient number of cases, and with results, too, which seem to justify our belief in its efficacy.

The best material to be used and the details of technic, however, are questions still to be worked out. There are some points which appear to be well established. For instance, the traumatism incident to the operation should be as slight as possible. A bone flap which can be replaced is preferable, when possible, to the trephine opening with the bone left out. Before the introduction of any substance hemorrhage should be perfectly controlled and all blood clots removed. The substance should extend well beyond the edge of the area involved in the adhesions. There should be no openings or breaks in the substance. The material must be one which can be sterilized. The wound must heal in a perfectly aseptic manner. The question of material is not so well settled. Whether the organic substances, such as egg membrane, prepared ox peritoneum, etc., will prove of value remains to be determined. They have not been used often enough to relieve one of the theoretical doubt of their efficacy, as the case of Greer, mentioned above, is unsatisfactory. Thin rubber tissue has been used a number of times with good results. The author has a patient who has carried a good sized piece of rubber tissue in his skull for several months with an excellent result. One disadvantage of the rubber is its tendency to roll up after it has been inserted. It then not only fails to fulfill its purpose, but may be an actual cause of irritation. The author knows of one unreported case in which the rubber, which had to be removed some months after it was introduced, was found all rolled up. The rubber may also be disintegrated by granulations, as in McCosh's case.

The use of the thick, unyielding metal plates or the heavy foils, such as the No. 60 or thicker dental gold, the author believes as a rule undesirable. The heavy plates may become tilted and act as irritants or gradually work their way to the surface; or late suppuration may occur, necessitating their removal, as the author has known in one case. Of the materials thus far proposed, the author believes the thin foils are the best, and of these he prefers the silver foil. It is so thin and soft and smooth. It conforms to all irregularities of the surface on which it is laid. As many layers may be applied as may be necessary to secure a smooth, unbroken surface. It is not only tolerated very kindly by the tissues, but exerts a beneficial influence on granulating or healing surfaces. The foil may be placed directly in contact with the brain tissue, between the pia and dura, or wherever it may be necessary to accomplish the purpose desired.

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[7] Ann. Surg., 1898, xxviii, 455.
[8] Amer. Jour. Med. Sci., 1898, cxv, 549.
[9] Ann. Surg., xxvii, 671.
[10] Ann. Surg., xxviii, 455.
[11] Bristol Med. and Surg. Jour., 1901, xix, 42.

The author has used the silver foil in a number of cases of brain surgery, and while no claim for anything new is made, he wishes to urge its more frequent use for the purpose indicated, and with greater care in reference to the technical details above mentioned.

The following case will illustrate the application of the principle:

George P., aged 12. When three years old he fell out of a chair and injured his head. He was taken to a hospital, where he remained two weeks. After returning home he was all right for about two years, when he developed epilepsy. The attacks were of the jacksonian type, beginning in the left arm. In addition there was partial paresis of certain muscles of the left arm, and to a very limited extent of the left leg. He entered my service at the Children's Hospital, June 22, 1900. Dr. H. T. Patrick saw the case with me, diagnosed a cortical lesion involving the left arm center, and advised operation. This was done July 10, 1900.

A large osteoplastic flap was turned down, uncovering the area indicated. A subdural calcareous mass was found about 3 cms. in diameter by 1½ cms. in thickness. It was firmly attached to the inner surface of the dura as well as to the brain tissue. A dural flap was turned down and freed from the mass. In removing the mass the cortical surface of the brain was unavoidably injured, and quite a depression remained in the brain tissue. After controlling the hemorrhage, the dura was replaced and sutured, as was also the osteoplastic flap. Primary union occurred and recovery was without incident. He left the hospital Aug. 5, 1900.

Notwithstanding the fact that active treatment with the bromides was pushed after the operation, relief from the attacks only lasted about two months. They then recurred and gradually increased in frequency and severity until in February, 1902; when he again entered the hospital he was having from five to eight fits a day. The left arm was quite weak and movements impaired.

The second operation was performed February 17, 1902. The same osteoplastic flap was turned down, and the dura opened. Firm adhesions were found between the dura and the brain tissue. These were carefully separated and hemorrhage controlled. Several layers of very thin silver foil were then placed over the brain tissue, extending some distance beyond the area involved in adhesions. The dura was then replaced and sutured, and the skull closed as before. Recovery from the operation was perfect, and he left the hospital March 23, 1902. The bromid treatment was continued as before. He has been under observation up to the present time, and although it has been a year and ten months since the last operation, he has not only not had a single fit, but has improved materially in his left arm as well as in his general condition. He attends school regularly and says that he feels perfectly well.

A METHOD OF DISPENSING WITH RUBBER GLOVES AND THE ADHESIVE RUBBER DAM.

A PRELIMINARY NOTE.

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The disadvantages, inconveniences and dangers of rubber gloves and dam, as well as their theoretical advantages, are well understood and will not be commented on here. For several months past I have been endeavoring to find a material that might be applied to the hands of the surgeon and skin of the patient which would practically seal these surfaces with an insoluble, impervious and practically imperceptible coating—a coating that would not allow the secretions of the skin to escape and will not admit secretions, blood or pus into the pores or crevices of the skin, at the same time one that will not interfere with the sense of touch or impair the pliability of the skin. I have ascertained that a 4, 6 or 8 per cent. solution of gutta-percha in benzine fulfills all of these requirements, while a similar solution in acetone also meets most of the requirements. In my clinical experience in the last four months I have found that the 4 per cent. solution of rubber in benzine is the most serviceable for the hands, as it wears better on the tips of the fingers under handling instruments, sponges and tissues than the acetone solution. For the abdomen the acetone solution has the advantage, as it dries in from three to four seconds after its application, while the benzine solution takes from two to three and a half minutes to dry to a firm coating. The acetone coating when dry is only slightly adhesive while the benzine coating is sticky.

The method of application to the hands and forearms is that of simple washing as with alcohol, care being taken to fill in around and beneath the nails. The hands must then be kept exposed to the air with the fingers separated until thoroughly dry. They may then be washed in alcohol, bichlorid or any of the antiseptic solutions without interfering with the coating or affecting the skin. It wears off on the tips of the fingers if the operations be many or prolonged, when another application may be made between operations; on the remaining portion of the hands one application is sufficient for a whole morning's work.

My routine method of hand preparation is as follows: First, five to seven minutes' washing with spirits of green soap (5 per cent.) and running hot water; second, three minutes' washing with alcohol; third, after thoroughly drying I pour on the rubber solution after the method above stated, allowing it to dry without rubbing, after the surface is thoroughly covered. The coating is so thin it can only be recognized by its glazed appearance. The coating will resist soap and water washing to cleanse the hands between operations. It is removed by washing in benzine.

The abdomen or surface preparation is five minutes' scrubbing with spirits of green soap (5 per cent.), then washing with ether, followed by alcohol. The surface is then swabbed over thoroughly with the acetone or benzine rubber solution.

The gutta-percha solution is prepared by dissolving pure gutta-percha chips in sterile benzine or acetone. This was accomplished first for me by the chemist, E. von Hermann. These solutions do not stand boiling as it impairs the adhesiveness and elasticity of the coating. The advantages of this method of avoiding the dangers of infection from the hands and skin of the patient are very evident. In addition to the bactericidal properties of the benzine it prevents perspiration beneath the coated surface, and also the rubbing off of epithelia from the hands and skin surface into the wound. It does not puncture like the rubber glove, and where it wears off on the finger tips there is no accumulated epithelium or secretion beneath. It is, moreover, impermeable and precludes the ingress of infective flora or blood to the operator's skin. After operating, the surface washes clean as readily as the surface of a rubber glove. At the end of the day's work, when the hands are washed in benzine to remove the coating, the skin is very soft and smooth. The surgeon's hands are thus protected from all of the deleterious effects of daily operating, which is in itself a safeguard against infection. Inoculation and bacteriologic tests are being made and will be reported in detail later. The simplicity and ease of application of this method, with its practical certainty of protection, should appeal to every operator.

SIMULTANEOUS EXTRA-UTERINE AND INTRA-UTERINE PREGNANCY.

REPORT OF A CASE.

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Mrs. O., aged 38, was married Oct. 2, 1902, and had menstruated regularly every 24 days until April 20, 1903, which was the date of her last period. She suffered more or less pelvic pain from that time. She was removed to St. Francis Hospital July 14, 1903.

The following history was furnished me by that institution: Family history, negative. Personal history: She had always been delicate, and particularly so since an attack of pneumonia two years ago. Menstrual history was normal, the last period having occurred April 20, 1903. Present illness began about June 14 with obstinate constipation, and severe pain in abdomen centered over sigmoid region. Her physician gave morphia to relieve the pain. Later she had severe vomiting and was given fractional doses of calomel without effect. High enemas were administered with some effect. June 20, 1903, patient aborted two-months' fetus. The abdominal pain persisted, and was most marked in the lower right quadrant; abdominal muscles were rigid. She was admitted to the hospital July 14, suffering from almost continuous vomiting, constipation amounting to obstruction and severe abdominal and lumbar pain. She was thin and emaciated, and of a sallow complexion.

Examination of the heart was negative. There was impaired resonance at the apex of the right lung in front and over the left apex posteriorly; bronchovesicular breathing posteriorly on the left side, anteriorly on the right side and subcrepitant râles on the right side anteriorly. The abdomen was distended, tender on pressure, rigid, dull in the flanks and over the hypogastrium. No tumefaction could be outlined. An evacuation of the bowels was secured July 16, after which all symptoms were somewhat relieved, but the patient became dissatisfied and returned to her home July 20.

At her home a diagnosis of abdominal pregnancy was made by Dr. R. M. Sands, who sent her to the East End Hospital, for operation, where she was admitted August 6. Throughout her illness morphia had been administered only in sufficient quantities to relieve pain, but she had become more or less addicted to the drug. She was emaciated to the last degree. A large hard mass could be felt in the right iliac region which protruded so that it could be distinctly palpated. No fetal heart sounds or bruit could be heard. The appearance of the mass and the patient's cachexia suggested malignant disease.

An operation was performed August 8. The incision was made in the median line. Firm intestinal adhesions were dissected from the anterior surface of the mass before the enveloping membranes were revealed. Haste being such an important factor on account of the desperate physical condition of the patient, these were simply incised, the liquor amnii evacuated, and a perfectly fresh fetus with the cord and placenta removed. The sac was packed with iodoform gauze to control hemorrhage, and the edges sutured in the abdominal wound. The fetus measured 10.5 cm. from vertex to rump, and was probably alive when delivered.

The patient was almost pulseless when taken from the operating table, but reacted nicely after free stimulation and hypodermoclysis. The temperature and pulse rapidly reached normal; bowels moved on the fourth day. The gauze was removed on the fourth day and fecal matter was found in it. The membranes sloughed away on the eighth day, the fecal fistula persisting. Convalescence was further complicated by the morphia habit previously mentioned. The patient was exceedingly hard to manage and insisted on returning to her home, which she was permitted to do on her promise to have the care of a trained nurse. *At this time, thirty-nine days* after operation, she was able to be about her room and the halls of the hospital. After her return home she declined the attention of a nurse, finally refused nourishment entirely, and died of inanition, Oct. 19, 1903, sixty-seven days after operation.

A thorough autopsy was not practicable, but a sufficient examination was made by Dr. James Ralston to determine the primary seat of the abdominal pregnancy as right tubo-ovarian. The fistulous tract communicated with the rectum and was probably due to a placental attachment at that point.

The condition which this case illustrated is the simultaneous development of an intra-uterine and an extra-uterine gestation. That fecundation is also practically simultaneous in the great majority of cases is borne out by the reports of unimpeachable cases to date. It is the phenomenon of a twin pregnancy, except that the one ovum is arrested in its course before it reaches the uterine cavity. No pathologic condition can be especially charged with its occurrence, except those which obtain in the ordinary cases of ectopic pregnancy. Cases of intra-uterine pregnancy occurring after the termination of an extra-uterine gestation do not come under this classification.

Simultaneous extra-uterine and intra-uterine pregnancy is looked on as a rare condition, and some of the latest text-books on gynecology dismiss the subject with a line and speak of it merely as one of the possibilities. Zinke[1] tabulated 88 cases taken from the collections of B. B. Browne, H. Gutzwiller, John S. Parry, E. W. Martin and Christer-Nilson, to which he adds his own collection with the report of 1 case. Vilsin[2] collected from the literature as far back as the eleventh century 68 cases, to which he adds 1 observation of his own. In 58 per cent. of the cases of this collection the women were between 30 and 40 years of age; 19 per cent. were primiparæ. In only 20 cases did both fetuses arrive at full term; in 47 both aborted, usually one before the other. The death of the mother caused the death of the immature fetus 6 times, i. e., in 10 per cent. of the cases; the intra-uterine fetus went to term in 29 cases, i. e., in 46 per cent. of the cases. In 25 cases, or 37 per cent., the extra-uterine embryo went to full term. Vilsin's most important conclusions are that interruption of the intra-uterine pregnancy had by far a slighter effect on the further development of the extra-uterine pregnancy than vice versa.

Disturbances in the blood circulation in close neighborhood to the uterus caused by rupture or abortion of the pregnant tube, are in many cases responsible for the premature interruption of the intra-uterine pregnancy. The fact that in twenty-five cases the ectopic fetus reached a full term is not considered by Engstrom[3] as a mere accident, but he believes that increased afflux of blood to the pelvis on account of the intra-uterine pregnancy improves at the same time the blood supply of the pregnant tube, thus promoting the development of the ectopic fetus.

At least twenty-five cases of simultaneous extra-uterine and intra-uterine pregnancy may be added to the tabulated record of Zinke, mentioned above. Some of these were overlooked in the preparation of the various collections and additional ones have been reported since the date of his collection on going to print. But it is more than probable that the reported cases of this condition are only a small percentage of those actually occurring. No doubt many cases occur in which the extra-uterine pregnancy terminates without attracting sufficient attention to make a diagnosis or in which the symptoms are overlooked, and the intra-uterine pregnancy continues to term or aborts, or death may happen from the rupture of the ectopic sac, and the intra-uterine pregnancy be undiscovered. Again, there are those cases in which the intra-uterine abortion, in the light of an existing extra-uterine gestation, is supposed necessarily to be the expulsion of the decidua. It is a part of the history of most cases of ectopic pregnancy that the patient expelled something which was supposed at the time to be a miscarriage, and in view of the increasing number of reported cases of a co-existing intra-uterine and extra-uterine pregnancy, it is safe to assume that occasionally instead of the expulsion of the decidua it is the abortion of the intra-uterine gestation. It is also possible that in the early discovery of an ectopic pregnancy the intra-uterine gestation is destroyed by the curettement usually preceding operation on the pelvic organs. At any rate, the condition occurs frequently enough to stimulate a desire to save at least two of the three lives involved. To accomplish this it is most important that an early diagnosis of the ectopic pregnancy be made and the pregnant tube removed by operation. It is not of the utmost importance that the intra-uterine pregnancy be diagnosed, but it is well to keep steadily in mind that the phenomenon of simultaneous extra-uterine and intra-uterine pregnancy does occur, and by the elimination of the preliminary curettement in all suspected cases of a co-existing intra-uterine and extra-uterine gestation, or, better still, in all operations for ectopic pregnancy, an occasional life may be preserved.

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[1] Journal of Obstetrics, May, 1902.

[2] Ibid., January, 1902.

[3] Amer. Year Book of Med. and Surg., 1903.

Clinical Reports.

VOLVULUS OF THE OMENTUM.*

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Including my case nine instances of volvulus of the omentum have been recorded in surgical literature. These are as follows:

Case 1.—Male, aged 35 years, a patient of Dr. Alfred Allman, for whom I operated. His mother, a sister and six children are living and in good health. He had never suffered from any serious illness. Four days before operation, while in the best of health, he was attacked by severe abdominal pains, which began in the epigastrium, and which later settled in the right iliac region. He vomited at this time and went to bed. The pain grew worse and the vomiting persisted. I saw the patient for the first time June 19, 1902, on the fourth day of the illness. He was a large, well-nourished man, sweating freely, and evidently suffering severe pain. His temperature was 101 F., the pulse 120, and the respirations 20. There was no hernia. The right side of the abdomen was rigid and the point of greatest tenderness was at the outer border of the right rectus muscle on a level with the umbilicus. The bowels had moved freely just before the time of examination.

A diagnosis of acute appendicitis was made and the abdomen opened through the right semilunar line. The appendix was removed and found to be normal except for three minute hemorrhagic spots beneath the mucous membrane. A further search of the abdomen was made and a mass feeling like a gauze sponge was found well above the incision. It proved to be the right lower corner of the omentum, gangrenous and twisted on itself through 360 degrees. After excision the mass measured six inches long and three inches wide. The peritoneal cavity was flushed with salt solution, and the abdomen closed without drainage. Recovery was uneventful.

The following is a report of the microscopic study of the excised tissue by Dr. Randolph: A large mass of omental tissue, dark in color and showing an abundance of adipose tissue. The mass is twisted longitudinally on itself at the point of amputation. Sections for microscopic examination were removed from the portion beyond the twist and embedded in paraffin and stained with hematoxylin and eosin. There is no necrosis of the adipose tissue. The blood vessels are the seat of extensive thrombosis, especially the smaller veins. Much of the blood in the vessels is extensively disintegrated. In some places there is extravasation of the disintegrated blood and pigment which infiltrates the neighboring connective tissue. The changes are those which would be brought about by interference with venous return.

Case 2.—Oberst,[1] 1882: Male, aged 35 years. Right inguinal hernia for 12 years. Symptoms of irreducible hernia for two days before operation. The diagnosis before operation was irreducible hernia. At operation the sac was found to contain incarcerated omentum due to torsion, the torsion being entirely within the hernial sac. The probable etiology was forcible attempts at reduction.

Case 3.—Bayer, 1898: Female, aged 54 years. Left inguinal hernia 15 years. Following an attack of coughing there were severe pain in the hernia and a feeling as if a round object were revolving inside it. On the following day a diagnosis of strangulated hernia was made and operation undertaken. The omentum was found adherent to the mouth of the sac by a band forming one support, the other being the intra-abdominal pedicle of the omentum. Around these two points the omentum was revolved just as a triangular handkerchief that is held at two ends could be, the pedicle being twisted four or five times on itself. There was beginning gangrene of the omentum at the peripheral end, which was pushed back through the inner half of the hernial ring. The probable etiology was a severe attack of coughing.

Case 4.—Baracz, 1900: Male, aged 42. Left inguinal hernia for several years. Symptoms were those of strangulated hernia and a diagnosis was so made. The lower part of the omentum was thickened, dark in color, and turned several times around its axis. The hernial sac was empty except for some clear fluid and a band which ran from the base of the sac up through the inguinal canal into the strangulated omentum. The probable etiology was lifting a heavy trunk, followed by attempts at taxis.

Case 5.—Peck, 1900: Female, aged 37 years. Right inguinal hernia for 12 years. The symptoms were abdominal pain, vomiting, and slight fever. A tumor could be felt in the abdomen, and a diagnosis of suppurating ovarian cyst was made. The tumor was made up of the entire omentum, a tightly twisted pedicle being found just below the transverse colon. There was no connection between the hernia and the omentum, but there were some old adhesions between the omental mass and the right ovary. Microscopic sections showed chronic inflammatory changes and the extravasation of beginning strangulation. Etiology unknown.

Case 6.—Hochenegg, 1900: Male, aged 41 years. Right inguinal hernia for 30 years. Twenty-four hours before the onset of symptoms the hernia became larger and could only be reduced with the greatest difficulty. The symptoms, which were present for two days before operation, were abdominal pain, distension, vomiting, fever, and a mass in the right iliac region. A diagnosis of appendicitis had been made. The tumor consisted of strangulated omentum, was the size of a man's head, was nowhere adherent, and had a slender pedicle twisted on itself three times from right to left. The probable etiology was attempts at reduction of the hernia.

Case 7.—Wiener, 1900: Male, aged 79 years. Right inguinal hernia for 30 years. The symptoms were pain in the right iliac region, which had come on suddenly four days before operation, slight fever, and a tumor in the right abdomen. A diagnosis of intraperitoneal abscess was made. A piece of omentum as large as the palm of the hand and dark blue in color was found. Its distal portion was adherent to an epiploic appendage on the ascending colon and its proximal portion was continuous with the remainder of the omentum by a narrow pedicle, which was twisted on itself five or six times, causing strangulation of the portion of the omentum affected. Etiology unknown.

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* Read before the College of Physicians of Philadelphia.

[1] Cases 2 to 7, inclusive, are abstracted from Weiner's valuable paper on "Intra-abdominal Torsion of the Omentum," Annals of Surgery, November, 1900.

Case 8.—Baldwin,[2] 1902: Male, aged 47 years. Hernia not present. Typical symptoms of appendicitis were present for three days. No tumor could be felt. A diagnosis of acute appendicitis was made. The omentum was rolled up so as to make a distinct tumor with a small pedicle, which was twisted on itself eight times, the entire mass being about the size of a large fig. Etiology unknown.

Case 9.—Blake,[3] 1903: Male, aged 45 years. Right inguinal hernia for 20 years. Three days before admission he had pain in the right side of the abdomen and in the hernia. Attempts at reduction were unsuccessful and painful. The lower right quadrant of the abdomen was filled with a mass which reached to the middle line. A diagnosis of probable appendicitis, with a peritonitis spreading into the hernial sac, was made. The omentum was gangrenous and twisted through four and a half turns at its attachment to the transverse colon, constricting it to a rope-like mass one and one-fourth inches in thickness and four inches long. The lower end of the omentum entered the sac of the hernia and had been retained there by the thickness of its extremity. Probable etiology, attempts at reduction of the hernia.

Summary.—Seven of the cases were males, two females. The ages of two were 35, one 37, one 41, one 42, one 45, one 47, one 54, and one 79. The omentum was connected with the hernia in five of the seven cases in which a hernia was present. The symptoms were acute in all and pointed toward some serious intraperitoneal lesion. The diagnosis was not made in any case; two were diagnosticated strangulated hernia, one irreducible hernia, four appendicitis, one intraperitoneal abscess, and one suppurating ovarian cyst. The tumor could be palpated in five; in four no tumor could be felt. There seems to be no way suggested by which a diagnosis may be reached. A movable, doughy tumor coming on quickly after attempts to reduce a hernia should make one suspicious of omental torsion. A count of the leucocytes may contribute in differentiating this condition from an abscess. A blood count was not made in any of the above cases. In all of the cases the importance of immediate operation was recognized. The extent of omentum involved varied from a portion, the size of a large fig, to the entire omentum forming a mass the size of a man's head. The tip of the omental mass was fixed in six cases, thus forming two supports between which the omentum might turn. The cause of torsion was forcible attempts at reduction of a hernia in four instances, severe coughing in one, and unknown in four.

Comments.—It is easy to understand how a twist in the omentum may be produced by forcible taxis of an epiplocele, by cysts or tumors of the omentum which develop irregularly, by a careless operator who fails to smooth out the omentum after an abdominal operation, and by contraction of the abdominal walls or movements of the intestine in those cases in which the tip of the omentum is adherent, but the explanation is difficult in those cases in which an apparently normal omentum revolves on its own axis in an apparently normal abdomen, as in two of the reported cases. As the result of experiments on animals, Payr[4] is convinced that overdistension of the spirally disposed veins of the omentum would produce a twisting of that structure.

Weiner[1] emphasizes a practical point of some value in those cases of hernia in which there have been symptoms of strangulation and in which only a strand of omentum is found in the sac at the time of operation, by insisting on a thorough investigation of the intra-abdominal portion of the omentum for torsion.

A study of these cases impresses on us an additional danger in employing forcible taxis and serves to fortify the conviction already formed that strenuous efforts to reduce a hernia are exceedingly hazardous.

TWO CASES OF INFANTILE MYXEDEMA

JAMES FREDERICK CLARKE, A.M., M.D.
FAIRFIELD, IOWA.

There are no less than six cases of infantile myxedema, resulting in a cretinoid condition, in Iowa, and probably many more. Since the condition is frequently unrecognized, it is possible that the accompanying photographs of the two cases occurring in my practice may help to call attention to the value and importance of early treatment.

Case 1.—E. M.[1] was first seen when 20 years and 4 months of age (Fig. 1). Thyroid feeding was at once begun. Improvement was rapid even at this late age. In the first 18 months the increase in weight was 13½ pounds, and in height was 5¾ inches (Fig. 2). She now, at nearly 23 years of age, appears as a bright active child of 7 or 8 years, with, since treatment was begun, an entire new growth of hair, new teeth and a normal soft skin.

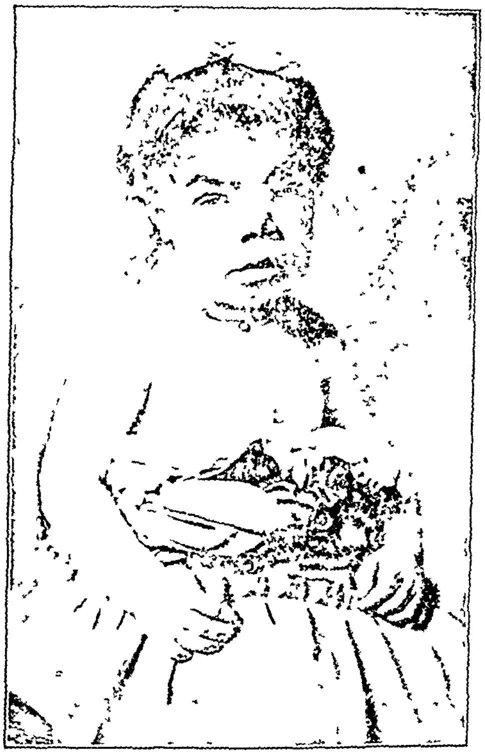

Fig. 1.—Case 1. E. M., age 20 years and 4 months, at beginning of treatment.

Case 2.—P. B., born in Iowa, was seen first when 8 years and 5 months of age (Fig. 3). Her family history was good. The mother gives the past history as follows: The labor at her birth was easy, no physician being present. The baby weighed 9 pounds. At two weeks a "blood tumor" appeared on the forehead and grew to the size of a walnut. At 4 months this tumor was removed under chloroform anesthesia. Whooping-cough was the only other sickness until she was weaned and began teething at 18 months of age. At 18 months she was "sick all winter," lying in her buggy all the time, and having a yellow color. Teething continued to the sixth year. She has never walked except by holding to chairs, and has never learned to speak but a few words. She has had alternating diarrhea and constipation and at times vomiting. Though always sleeping well, she eats very little, at many meals not more than two teaspoonfuls of food. She has never had spasms and the eyes have never been crossed.

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2. Annals of Surgery, December, 1902.
3. Annals of Surgery, July, 1903, p. 93.
4. Archiv f. klin. Chir., vol. lxviii, No. 2, 1902.

1. Reported with early photographs in the Medical Fortnightly, May 26, 1902.

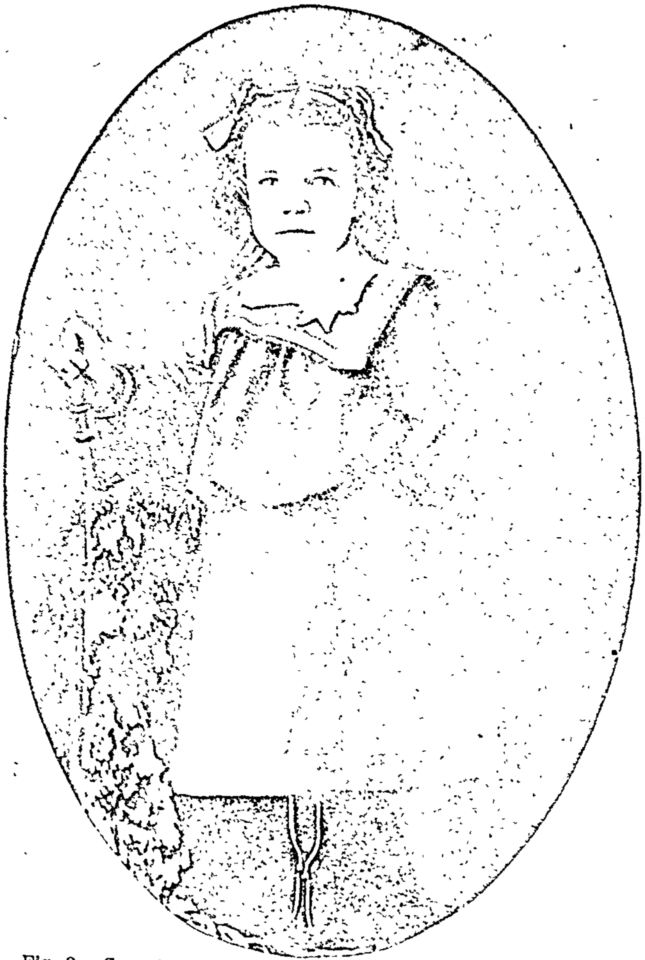

Fig. 2.—Case 1. E. M., age 21 years and 11 months, after one year and seven months' treatment.

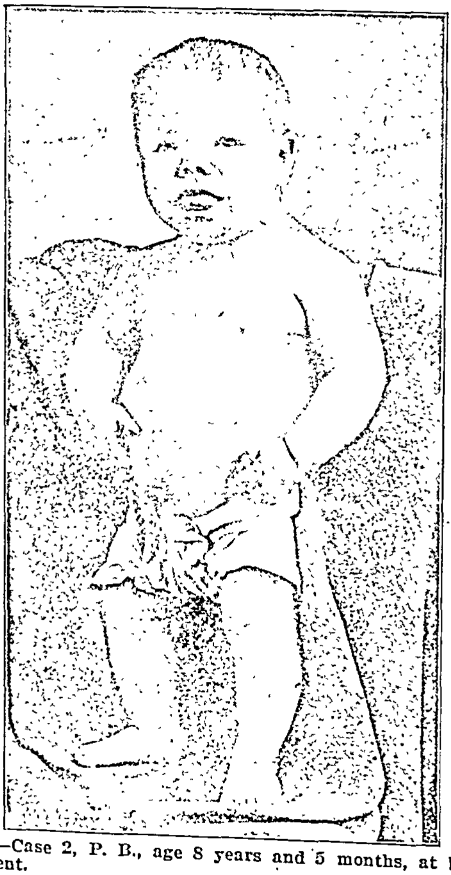

Fig. 3.—Case 2, P. B., age 8 years and 5 months, at beginning of treatment.

When first seen, Nov. 25, 1902, this child, 8 years, 5 months old, had the fontanelle open. The suture lines of the skull were depressed. The thick tongue protruded and the saliva constantly dribbled from the mouth. The child would sit continually in an apathetic condition or would stand supported by a chair. The hair was coarse, the skin dry and wrinkled, and only first teeth were present. The abdomen was prominent, the legs bowed and the spine curved so that the chin rested on the thorax.

Thyroid feeding was begun at once. Beginning with one-half of one tablet after each meal, the amount was rapidly increased until two tablets were given three times a day. In two weeks she became brighter and more active. There was at first a loss in weight and then a rapid gain.

In one year from the beginning of the thyroid feeding, the gain in weight has been 14 pounds, and the gain in height 7¼ inches (Fig. 4). Two new teeth have appeared and her hair is all new and soft. She runs about, eats well and is learning to talk. The photographs show better than words the transformation.

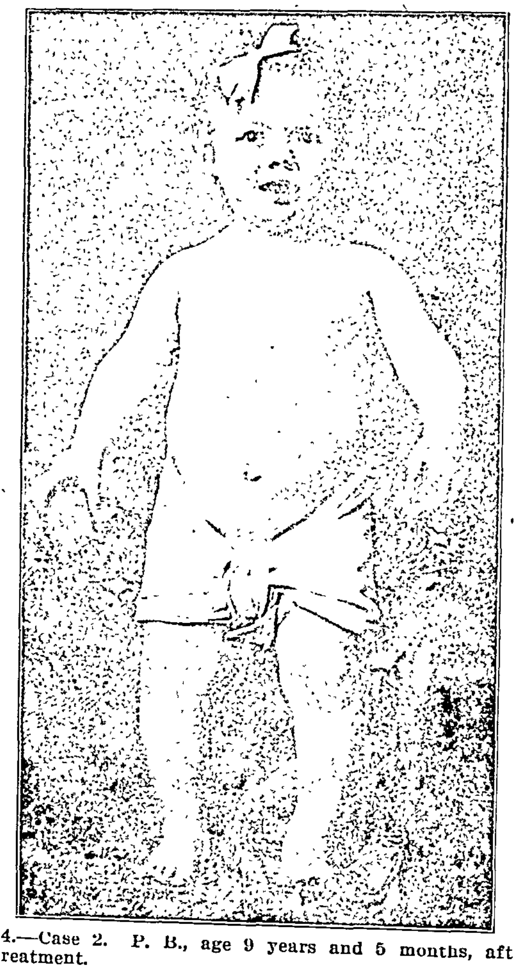

Fig. 4.—Case 2. P. B., age 9 years and 5 months, after one year's treatment.

A Tropical Clinical Thermometer.—Baldwin describes in the London *Lancet* (January 30) a thermometer to take the temperature of a patient when the atmospheric temperature is greater than that of the patient. The ordinary clinical thermometer can not be shaken down below the register of the atmospheric temperature. The new thermometer is made without the stricture or bend for registration. It is, therefore, a minimum thermometer, that is, it will register the lowest temperature. The thermometer is made longer than ordinary, so that it may be read without removal from the mouth or axilla, because it will commence to change immediately on removal. It also has a vacuum bulb at the distal end to provide against expansion, as ordinary thermometers sometimes burst when the temperature reaches 110 degrees.

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THE MEDICAL WORK IN HOSPITALS FOR INSANE.

An important treatise by Dr. Paul Sèrieux on the care of the insane in France, Germany, Switzerland and Italy, is being issued by the Municipal Press of Paris. We are accustomed to the difficulties in the medical administration of American hospitals for the insane, and are prone to think that they order these matters better in France; but it is interesting to find that precisely the same difficulties as our own confront the physicians in charge of foreign hospitals.

Dr. Marandon de Montyel, the head of a large asylum, is quoted as saying that if he and all of his colleagues were frank they would confess that it was impossible for them to know their own patients. Another physician, Dr. Brousse, asks how a medical superintendent can know his patients, when they number from six hundred to fifteen hundred. After showing that in order to examine an average number of nine hundred patients once a week, a man can devote only three minutes to each case, he ironically inquires: "How can one in three minutes make a minute psychologic analysis, an extensive physical examination, an inquiry into antecedents and heredity, and then proceed to gain the confidence of his patient and prescribe the proper course of treatment? In the face of this manifest impossibility, the only thing to do is to select certain cases, and naturally one chooses the most interesting. The others are left to their madness. The acute cases become chronic, and remain permanent inmates of the asylum which they cumber."

Dr. Sèrieux makes a sweeping indictment against the large institution, saying: "Thus it is true that not only are many of the insane not given treatment, but they are allowed to become—I had almost said they are made—incurable when they might have been cured. And the number of these is relatively large. Under such circumstances, an insane patient who recovers does so because of his own recuperative powers, for he has nothing to depend on but the vis *medicatrix* naturæ. Fortunately this is sometimes powerful enough to repair the ravages which the ignorance and stupidity of men only succeed in aggravating *instead* of checking."

The physician, according to this authority, is reduced to the rôle of registrar, farmer and hotel keeper. If a farming establishment is connected with the asylum, he will superintend its operations. He must be responsible for the bakery and the kitchen, and above all he must sign stacks of papers and certificates, which, however, are really given out blindly; he must keep elaborate records when he ought to be examining and caring for his patients. Every day he makes a visit to the wards. And what a visit! A review *en bloc et au galop*, like a colonel passing in front of his regiment, a summary, hasty inspection which has fully as much to do with the conditions of the ward as of the patients. The *mise en scène* of this function is often carefully arranged to enhance the dignity of the superintendent. "But," Dr. Sèrieux asks, "what is the use from a medical point of view of this procession, with the superintendent at the head, followed by an escort of assistants, nurses and attendants? Such a visit is as inefficacious as it is ceremonious. It takes cognizance chiefly of the noisy patients, may have a subduing influence over them, and has been felicitously called 'police therapeutics.'"

Whoever is familiar with the American hospital for the insane must recognize that this description applies well to many of them. The great problem of hospital administration in the United States, as in France, is how to restore the physician to his rightful domain. At present in America, the physician in charge is made general superintendent, in an effort to avoid a clash of authority between a medical head and a business manager. Various other experiments have been suggested and even tried. We have had the business superintendent with a medical staff supposedly supreme in its sphere, yet necessarily limited and unauthoritative. From this we have quickly swung back to the usual plan of a physician-superintendent.

Three states, Iowa, Wisconsin and Minnesota, administer the affairs of their charitable and even penal institutions by boards of control, consisting of paid officials appointed by the governor of the state, and whose duty it is to make purchases and contracts for the whole group of institutions under their charge. The theory underlying the creation of such bodies is, of course, that the centralization of responsibility which the business world has found so effective and profitable, will prove equally advantageous in public financial operations. But from our point of view its most important result is, that if properly administered, such a board would free the superintendent from many of the irksome non-medical cares which now infest his day. The work of such boards has been, perhaps, too brief and too limited by various circumstances for us to be able as yet to judge fairly how far they can effect this object.

Doubtless the most intelligent experiment in this country is shown in the New York Lunacy Commission. The material care of the 23,000 insane persons who are the wards of the State of New York is in itself an enormous business, justifying the application of the most approved business methods, and it was natural on that ground alone that there should be an effort to make purchases in the largest quantities and at the lowest rates. The commission, as is well known, consists of three salaried commissioners, one of whom is a lawyer, and one of whom must be a physician. Observers of New York conditions have viewed with some concern the recent tendency to make the commission more and more bureaucratic. The question is a nice one: How to secure centralized responsibility in business matters, how to correlate the medical work of the various institutions, how to secure a general medical *esprit dé corps,* yet without sacrificing the personal responsibility and power of initiative which the physician must retain.

To our minds the whole subject of institutional administration deserves from the profession a degree of attention it has not received thus far, and the fact that the same difficulties are felt the world over only emphasizes this need.

THE TREATMENT OF PNEUMONIA.

What is needed in the treatment of pneumonia is not more drugs, but the discriminating and intelligent use of those we have. We need to steer clear of therapeutic nihilism on one hand, and of overdoing and polypharmacy on the other. To declare, because there is as yet no specific for the disease, that drugs and medical treatment are valueless, is as absurd as it is to pour useless or even harmful drugs into the patient as soon as the diagnosis is made.

The temptation to overtreat is great. Recognizing the grave nature of the malady, knowing its rapid course and its tendency to suddenly developing complications, importuned by anxious friends to relieve annoying symptoms and to keep doing something, we too often yield to the pressure and, before we are aware, have gotten into the narrow path of treating the disease and not the patient. We soon begin to talk of "my treatment for pneumonia," and we are humbugged into believing in the efficacy of our pet remedies, though to an outsider it is clear that too often we are doing harm. It would be a fine clinical lesson if each medical student before graduation could have the chance of watching, say one hundred cases of pneumonia—and of other acute infections, too—and thus have the lesson of the tendency toward spontaneous recovery firmly ground into his mind. It would be most valuable capital on which to begin his practice of treating infectious diseases.

On the other hand, the physician who has seen cases die—and he is generally a hospital physician—in spite of medicine, and other cases recover without any drug at all, is apt to become skeptical and declare that there is no treatment for pneumonia except for its surgical complications, and that the patient's only hope is in his resisting power, the *vis medicatrix naturæ.* Such a view is as narrow-minded and ridiculous as the opposite; such practice has had the negative virtue of not being directly harmful, but its sins of omission may be many.

The treatment of pneumonia is discussed in a judicial tone by Dr. Gilman Thompson in this issue of The Journal.[1] His advice regarding the general uselessness of expectorants, external applications and the so-called specifics, is timely. This advice has been given many times, yet it will, we fear, be thought by many readers to apply to the other fellow. But if the cap fits, let us put it on. How can we consistently and conscientiously give to our patients enormous doses of digitalis, creosote, guaiacol, sodium salicylate, etc.—doses that if given to him in health, we should declare were toxic and plainly responsible for nausea, vomiting, cardiac weakness, albuminuria, delirium and other untoward symptoms? Yet we pour in the huge amounts because we have seen—probably in an abstract—that some one, usually an obscure writer, but with a German name, has declared his belief in the efficacy of such and such a medicine. Thompson, it will be seen, believes in drugs. He knows, as does every physician of experience, that he has saved lives by their timely use. But he warns against the overstimulation of the heart, against overfeeding, against the too free use of that two-edged sword, morphin. Morphin in pneumonia, by the way, always seems to us like the revolver in the home—a weapon that should be kept on the shelf out of reach of the children, for while of inestimable value at the right time, it is capable of doing incalculable harm, and only the experienced ones should handle it. The constant annoying of the patient by too frequent sponging, moving, giving of food, medicine, etc., is a point that should be brought home to us all. Rest and sleep are sometimes of far greater value than drugs.

Why can we not have for pneumonia, as for typhoid, a few broad general principles of treatment? Why not admit that at present there is no specific, and so stop the indiscriminate and harmful practice of overdrugging? A therapeutic nihilism, on the other hand, is equally bad. Drugs and other remedial measures are indispensable, and properly used save lives, but they should be employed only when needed, and then as needed by the particular case in hand. Let there be individualization in the treatment of this disease.

SOLUBLE BACTERIAL TOXINS.

When Roux and Yersin discovered that the filtrate of an old broth culture of diphtheria bacilli is strongly toxic for guinea-pigs; and when it was later shown by Behring that the serum of an animal which had been repeatedly injected with small and gradually increasing quantities of this toxin is capable of protecting another animal against a fatal dose of the toxin or of living diphtheria bacilli, it was thought that the problem of infectious diseases had been solved. It was soon found, however, that these discoveries are not capable of universal application because, aside from the diphtheria bacillus, the bacillus of tetanus is the only organism that has thus far yielded a powerful toxin when grown in the ordinary culture media. In the case of other organisms, the experience has been that, not having a toxin to work with, it has been impossible to prepare a satisfactory antitoxin. Of late years, numerous attempts have been made to get soluble toxins from other bacteria by growing them in specially prepared media or by treating the organisms in a special way after they have been scraped off a solid medium on which they were grown, and some of these efforts have been crowned with a fair degree of success.

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[1] See page 747.

Brieger and Mayer have found that typhoid bacilli when grown on a solid medium, scraped off and macerated for several days in a weekly alkaline solution of ammonium sulphate, give off specific substances which are capable of imparting strongly agglutinative and bactericidal properties to the serum of an animal that is repeatedly injected with the sterile solution. These solutions, although they contain specific bacterial products, are not toxic for experimental animals. and it seems that they for that reason can be of no great value in the preparation of an antityphoid serum which can be used successfully as a therapeutic agent. Conradi macerated typhoid bacilli and dysentery bacilli in .85 per cent. salt solution, and thus obtained solutions that were highly toxic for rabbits and guinea-pigs. The suspension of bacilli in salt solution is kept at incubator temperature for twenty-four to forty-eight hours, and under these conditions the bacilli undergo autolysis, liberating the toxins which are contained in their bodies. Macfadyen and Rowland, as we have pointed out,[1] prepared a highly toxic extract of typhoid bacilli by grinding up the organisms at a very low temperature and exhausting this mass with physiologic salt solution. More recently,[2] they have applied this method to streptococci, to *Staphylococcus pyogenes aureus, Bacillus enteritidis, Bacillus tuberculosis* and *Bacillus diphtheriæ* with equally satisfactory results. A 10 per cent. extract of streptococci, for instance, killed guinea-pigs within six hours when 0.1 c.c. was injected intraperitoneally. The results with staphylococci and *Bacillus enteritidis* were equally favorable.

Several attempts have also been made to get soluble streptococcus toxins by growing a virulent organism in special media. Marmorek prepared a medium containing glycocol and leucin, and asserts that he obtained a powerful toxin in this medium. The streptococcus, which was very virulent, was allowed to grow in the medium for eight days, when the culture was filtered and the filtrate tested on rabbits. The streptococcus used in these experiments had its toxin-producing power augmented by growing it for several generations in a leucocyte exudate obtained from a guinea-pig which had been injected with several doses of antistreptococcus serum. Besredka grew a virulent streptococcus in heated rabbit's serum, and thus obtained a special hemolysin secreted by the streptococcus, in the filtrates, but these filtrates were not toxic for rabbits. Recently, Simon[3] also prepared a toxin by growing streptococci in special media for three to eight days and filtering. He obtained leucocyte exudate from the pleura of rabbits, centrifugated the leucocytes out, and grew the streptococci in this liquid or in a mixture of it and bouillon. Filtrates from the cultures killed rabbits in doses of 2 to 7 c.c., but the time of death was very indefinite, varying from two to twelve days. Simon believes that a streptococcus, in order to secrete toxin, must meet a certain resistance to its development in the medium in which it is grown, and that this resistance is furnished by something in the leucocyte exudate. It seems now that those organisms which have been supposed not to secrete a soluble toxin do after all secrete their poisons, but in some instances, at least, they must be stimulated by the animal cell juices before they secrete toxins. It now remains to be seen whether or not it will prove possible by means of these specially prepared toxins to secure potent antiserums with actual therapeutic powers—the ultimate good of all this work.

PROFESSOR EHRLICH'S VISIT TO CHICAGO.

Next week the University of Chicago confers honorary degrees on a number of distinguished German scholars. The representative of German medicine selected for this conspicuous honor is Prof. Paul Ehrlich, director of the Royal Institute for Experimental Therapy at Frankfurt a. M. Ehrlich's name is one of the most familiar in the medical annals of our day. His earlier investigations into the morphology of the blood, and especially his differentiation of leucocytes, are known to every physician. His real fame rests on his theoretical investigations of the fundamental problems of immunity. A backward glance through the editorial pages of THE JOURNAL will show quickly the extent to which the Ehrlich lateral or side-chain theory has dominated the researches in this field during the last few years. This theory has not only made clear to us many observed phenomena, but has also been fruitful of important investigations, the results of which have been and will continue to be of great significance to therapy. Ehrlich's method of quantitative measurements of diphtheria toxin and antitoxin has been of the greatest service in serum therapy, at the same time as it has led to the establishment of the chemical nature of the interaction of these substances. It is of great interest to watch the steady growth of the chemical conception of the mode of action of the toxins, lysins and antibodies that have come to our knowledge within recent years. To Ehrlich will belong the great honor of the first fruitful theoretical foundation of the new science of immunity. Certainly the outlook for further results of direct therapeutic value from research in this field is most promising.

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[1] THE JOURNAL A. M. A., Dec. 5, 1903.

[2] Centralbl. f. Bakt., xxxv, 1904, 415.

[3] Centralbl. f. Bakt., 1904, xxxv, 440.

Since Ehrlich came to Frankfurt to direct the newly established Royal Institute for Experimental Therapy, many brilliant researches have been carried out under his supervision, and among them are certain noteworthy ones by American workers. In addition to research, the institute exercises governmental control of the curative and other sera manufactured in Prussia. All sera placed on the market must bear the imprint of having been found by this institute to be pure and to reach certain standards. This is a most important function. It guarantees the public the best products of serum therapy—an official guarantee that is not yet provided in this country.

A short time ago special arrangements were made whereby the scope of the institute was enlarged so that it could take up the problem of the etiology of cancer. Some results of this line of work have already been published, as, for instance, observations on epithelioma contagiosum in fowls, which is shown to be caused by a most interesting filterable, hence, probably, ultramicroscopic virus.

We understand that on March 21 Professor Ehrlich will deliver at the university a public address on "Modern Theories of Toxins and Antitoxins."

When the University of Chicago invites Professor Ehrlich to come to this country to receive an honorary degree under the circumstances mentioned, it is investigation in medicine that is placed on high as one of the ideals of German scholarship. We as a medical profession gladly join with the university in this recognition. To Professor Ehrlich we would express a deep sense of indebtedness for his devotion of his great gifts to theoretical investigation which has brought results that vitally affect human welfare.

DRUGGIST ETHICS.

There was a time when the drug store was really an apothecary shop for the dispensing of drugs on prescription of physicians. Now the average city drug store, at least, has become a bazar in which almost everything under the sun, and a few other things beside, can be purchased at cut prices. There are undoubtedly many things apart from the materials used for prescriptions that might properly find a place in a drug store. But the present heterogeneous collection of things so overshadows the original purpose of the institution that it is easy to understand how prescription filling becomes a very secondary department, with consequent neglect of due attention to this originally most important function, and there follow the evils of substitution, since the already crowded store has no room for the variety of drugs that may legitimately be called for.

There is another phase of present customs in the drug store that is even more striking and less desirable. Druggists' windows are usually covered with signs and advertisements recommending patent medicines and disgusting references to and indorsement of "lost-manhood" fakes and abortifacients. One is apt to find such catching phrases as "We recommend So and So's tonic," or "We know the value of Dr. X's cough medicine," or "Dr. Y's Successful Prescription for Women. Come in and let us tell you about it." Or, "Ask the drug man and he will tell you what to take for that cold," or "that backache." Sometimes these are illuminated announcements, which presumably show the personal interest of the druggist in these remedies. In a few cases, where such announcements have been noticed, the tonics so plausibly recommended contain nearly as much alcohol as the whiskey that is sold over the bar in the ordinary saloon. As the amount to be taken is from three to six tablespoonfuls, that is, one and a half to three ounces a day, it is easy to understand how some women, and what is, if possible, worse, some children, acquire the liquor habit in what is presumed to be an incomprehensible way.

The majority of druggists in our large cities now seem to consider it the proper thing, not only to push nostrums of others, but to have those of their own, or at least those that bear their names. None of these remedies is, as a rule, such as can be taken with impunity by the ordinary patrons of a drug store. The cough medicines are often a favorite remedy of incipient consumptives, and as they usually contain opium, they tend to lock up the bowels, decrease the appetite, lessen the secretions and consequently lower resistive vitality, while they make the chances of reinfection by keeping infective material within the lungs much greater than before. With regard to headache powders, there seems to be no doubt that some of the increase in the sudden death rate in our large cities noted in the last ten years is due to the careless and frequent employment of depressant coaltar remedies which are so easy to procure under the name of headache powders.

Beside this, many druggists consider it perfectly proper to give medical advice with regard to supposed minor ailments. There is certainly no physician doing work in the dispensary service of a large city who has not had cases of pneumonia, especially in young strong patients, who have applied to druggists and obtained some remedy that for a time has delayed their application to a physician for treatment. Needless to say, if the delay is long, that is, if the patient is encouraged to remain on his feet for twenty-four to forty-eight hours after he has felt the first symptoms of his affection, the prognosis of the case is extremely unfavorable. There are other classes of cases, especially the beginning infections, such as typhoid fever and even smallpox, where the facility with which a druggist prescribes for symptoms keeps patients from applying to a physician and learning their true condition before inflicting fatal injury on themselves or causing great danger to others.

It is very evident, then, that medical practitioners who have the good of their profession and the health of the community at heart, must discourage these unethical practices. It is no use to say that rents are so high that druggists must do much more business than that which comes to them in the filling of prescriptions and the proper dispensing of drugs. The reason why rents are so high is that druggists insist on having their stores on important business corners for the purpose of attracting the class of trade who buy the unethical goods they sell. There is no reason why properly conducted drug stores should not occupy much less conspicuous places than those which are now the favorites, and by so doing revert to the ethical institutions they were before. Commercialism has invaded entirely too much the proper domain of drug dispensaries, and it seems time for concerted action on the part of the medical profession to bring about the necessary reform. Meantime, much may be done to discourage the growing evil if physicians will encourage the filling of their prescriptions at pharmacies, where more attention is paid to the proper dispensing of legitimate medicines than at the almost department-store variety shops that maintain a counter for prescriptions, but very evidently consider this an entirely secondary feature of their business.

AUTO-DISPENSING.

The custom of dispensing medicines has been much more general among British practitioners than in this country. In fact, in a large practice it is not infrequent there for a physician to employ a special dispenser or pharmacist to put up his prescriptions or to prepare the drugs for use. Legislation now proposed would prohibit all such dispensing of medicine by physicians, except in remote country practice and in emergencies, etc. Naturally, this has raised a storm of protest. Such a measure has been a law, we believe, in France for some years, and it is reported not to work entirely satisfactorily; it is found that its advantages are not so many as its disadvantages. The druggist is apparently the principal gainer by the change. It is a truth that the art of prescribing is being to a certain extent lost, but, on the other hand, there are immense disadvantages in the prohibition of auto-dispensing. The ultimate result of such a law would probably be to send many patients to the prescribing druggist, and thus greatly increase the use of patent and advertised proprietary remedies.

THE COLD WINTER AND THE MORTALITY RATE.

Pneumonia, which is becoming the leading disease factor in the mortality of the present day, is a disorder that is very decidedly influenced by the external temperature and by the changes of temperature. The winter just closing, which has been almost a record one, and one which would show perhaps a greater amount of steady average cold than any other winter in the last twenty or thirty years if the month of November were included within the three winter months, has been a potent cause of much of the pneumonia mortality. According to a New York newspaper, the bacteriologic department of the Board of Health of New York City has investigated the subject of the contagion of pneumonia, and finds that contagion bears comparatively little importance to the spread of the disease. The board is inclined, therefore, to attribute the excessive death rate from pneumonia to the cold of the past winter. Of course, this is a factor additional to the influences, whatever they may be, which have been active in producing the greatly increased pneumonia mortality over the past ten or fifteen years. It is probable, therefore, without going into the field of prophecy, that the mortality, especially among the older and more feeble members of the community, during the coming spring months will be very much increased, largely through lung disorders, chiefly pneumonia. The reaction after a period of intense cold, such as has been the case, is likely to be a somewhat serious one, and many will succumb. The green winter is not always the one that makes the fat churchyard.

A SAFE FOURTH OF JULY.

The annual protest against the useless destruction of life and limb in the Fourth of July celebrations, instead of dying out last fall when deaths from tetanus ceased to occur, has been prolonged into a campaign. The startling statistics which we printed last August,[1] are still being referred to by the press; the matter is still being agitated in various parts of the country, and the indications are that there is more than a superficial interest in the saving of a good holiday from a bad usage. What might be substituted for the present noisy demonstration was the subject of a meeting of the Ravenswood (Chicago) Woman's Club recently. Segregation was suggested, a space being allotted to those who must burn powder, where, with a supply of physicians, they might celebrate in the old way, while other people celebrated in a quieter and more appropriate manner. Public meetings, speeches, picnics, music, and the instruction of children by their parents in the duties of citizenship—in other words, going back to the old and sensible method of celebration—was another suggestion. While there is not much in this program to entice a real boy from his firecrackers and revolver, the day might be so arranged, with games, picnics and various unusual occurrences, in which all the family, cousins, uncles and aunts join, as to leave no chance for him to miss firecrackers. The segregation idea is a good one. If the parents in a town or in a definite section of a city would agree to taboo fireworks—except in a certain described and limited locality—and to have a full day of celebration in other ways, the children would doubtless enjoy the day and have no regrets over the lost opportunity to burn powder and fingers.

TUBERCULOPHOBIA IN FRANCE.

Under a recent ruling of a commission appointed by the minister of the interior of France, consumptives in public hospitals must be kept isolated from the other patients. In January, the minister of the interior sent to the various local authorities circulars calling on them to give instruction to the hospital authorities to observe this rule of isolation. According to this rule, there must be no direct or indirect relation or association between the tuberculous and non-tuberculous, and the attendants and physicians having the care of the tuberculous must abstain from having anything to do with other patients, or at least must change clothing and be disinfected when they are obliged to change from one service to another. The practical difficulties of carrying out this rule are shown in an editorial in the *Semaine Médicale,* February 10. It points out that the regulation is far more strict than those now observed in regard to diseases much more seriously contagious than tuberculosis, and that this is the first time that any such rigid rules have been adopted anywhere, at least under the direct sanction of the government. The frequency of tuberculosis and the manifold forms in which it appears, the variations of its severity and the fact that probably a very large proportion of the population is more or less affected, or has been, would seem to point to the absolute impossibility of such strict and efficient isolation as is here apparently attempted. It would seem that tuberculophobia has gone farther in France than elsewhere.

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[1] The Journal A. M. A., Aug. 29, 1903.

THE FICKER TYPHOID TEST.

The application of the Gruber-Widal reaction to the diagnosis of typhoid fever has done much to clear up obscure cases, especially in hospital practice. The technic of the test is not especially difficult to acquire, but the necessity of having constantly on hand fresh and virulent cultures of the typhoid bacillus makes it practically impossible for the general practitioner to use the reaction directly; if he avail himself of the advantages which the application of the Gruber-Widal reaction affords, he must either have a bacteriologist come to his patient, or he must send some of the patient's blood to a central laboratory where special cultures of the typhoid bacillus are kept ready for the purpose. Too often the cultures in such laboratories cease to be suitable for the test, or the blood is given to an assistant who does not take the necessary pains to ensure a reliable report; just where trustworthy information is most needed, it may be wanting. Last year Ficker[1] recommended the use of a fluid containing dead typhoid bacilli from cultures of known origin and virulence instead of the bouillon cultures of living bacilli, twenty-four hours old, ordinarily employed. He maintained that the serum from typhoid patients agglutinated the dead bacilli very definitely, and that the procedure had numerous advantages over the ordinary Gruber-Widal reaction. Clinicians were at first somewhat skeptical with regard to the value of Ficker's test, but in a number of hospitals it is being tried and the results thus far have been favorable. J. Meyer,[2] working under Hansemann's direction in Berlin, finds Ficker's test even more reliable than the Gruber-Widal reaction, probably on account of the greater constancy of the virulence of the bacilli used in the manufacture of Ficker's fluid. In two cases of typhoid, in which the ordinary Gruber-Widal reaction was doubtful, the Ficker test gave a positive result. The new method has the great advantage of convenience. The test can be made by any physician in his office as easily as one can examine a sample of urine for the presence of sugar. No thermostat is required, no living culture of typhoid bacilli, no complicated technic. All that one needs beside the Ficker's fluid is a bottle of salt solution, a cupping glass, a glass pipette and a few test tubes. Merck of Darmstadt has put the fluid, together with the apparatus, in convenient form on the market. The method will doubtless be applied in the near future by many clinicians. Should the reports be as favorable as those thus far made, a decided step forward in typhoid diagnosis will have been taken.

TUBERCULOSIS AND PREGNANCY.

While it is the exception for tuberculosis to be transmitted directly from parent to child by heredity, a type of cell of lessened resistance and augmented susceptibility may be thus transmitted. In addition, the offspring of tuberculous parents is exposed to the danger of direct infection with tubercle bacilli expelled with the broken-down products of the morbid process. For these reasons the tuberculous patient should not marry, or if a married person be tuberculous procreation should be avoided, particularly in the case of women. Although it was at one time thought that pregnancy has no influence on the course of tuberculosis, or even has a beneficial influence, a better knowledge of the facts shows that it has really a most deleterious influence. From a study of this question, Dr. Wilhelm Hahn[1] expresses forcibly the opinion that pregnancy is a severe complication of tuberculosis, and the more so the more frequently it is repeated. He advises that in the conflict with tuberculosis as a disease of the masses, the question of preventing conception in tuberculous women should receive the most serious consideration. If pregnancy has occurred, the woman should be kept under constant medical observation. If aggravation of the tuberculous process take place, abortion may be induced with the consent of the woman and the sanction of a consultant. The life of the mother is to be considered as of more value than that of the child. In the later months of pregnancy, the induction of premature labor offers no advantage over delivery at term, and in the case of a tuberculous woman is a procedure of no small degree of gravity. As, moreover, a tuberculous woman may give birth to a healthy child, which, if placed under suitable environment, will have a favorable chance of living, it would be a mistake to sacrifice the life of the child needlessly. Since pregnancy of itself causes important changes in the human organism, a tuberculous pregnant woman should receive proportionately a greater amount of care. It is not likely, at the present time at least, that legal enactments looking to the application of any of the foregoing recommendations would be adopted or could be enforced, but these will subserve a useful educational purpose, and will receive the consideration of physicians and others interested in the welfare of the race.

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[1] Berl. klin. Woch., 1903, 45; The Journal, Dec. 12, 1903, p. 1505.

[2] Berl. klin. Woch., February, 1904.

[1] Berliner klinische Wochenschrift, Dec. 28, 1903, p. 1194.

Medical News.

COLORADO.

Will Establish Antitoxin Stations.—Stations for the distribution of diphtheria antitoxin are to be established by the State Board of Health in Denver and Salida.

January Deaths.—During January 915 deaths were reported in the state, an annual death rate of 18.65 per 1,000. Of these 34 were due to typhoid fever, 31 to diphtheria and 10 to scarlet fever.

Communicable Diseases.—During January there were reported to the State Board of Health, 168 cases of diphtheria, 208 of scarlet fever, 87 of smallpox, and 525 of typhoid fever. Of the latter 444 occurred in Leadville.

Obstacles to the Enforcement of Law.—John T. Bass, an osteopath of Denver, who was arrested at the instance of the State Board of Medical Examiners, charged with practicing medicine without a license, and who sued the board for $10,000 damages for malicious prosecution, was given a verdict and awarded $700 damages. The defendants will ask for a new trial.

Cause of Typhoid Epidemic at Leadville.—The typhoid fever epidemic at Leadville developed between December 20 and January 10. The State Board of Health, in its monthly bulletin, analyzes the causes of this epidemic. The diagnosis was first confirmed by two autopsies. It was found that in the fall of 1903, two cases of typhoid fever—one imported—were treated at St. Vincent's Hospital. This hospital is on some of the highest ground in the city, and the drainage is toward the center of the city. The sewage, before emptying into the sewer in the street, runs through a settling tank, where heavy matter is allowed to settle, and the liquids pass off into the sewer. This tank is made of brick and mortar, not cemented inside or out, and, consequently, is not water proof. The theory of the board as to the epidemic is as follows: Stools, which were not disinfected from these first few typhoid fever cases in the hospital, reached the settling tank, and seepage occurred downward toward the street until the water main was reached. December 5 the main was drained in the vicinity of this hospital. As soon as the mains were drained, a vacuum occurred, and, consequently, the seepage flowed into any crack in the main with which it came into contact. When the water is in the main, the pressure is so much greater inside the pipe than out that seepage can not occur. But when the main was drained the pressure was reversed. In a town like Leadville, it is not an uncommon thing, owing to the mining that is going on in the town and its vicinity, for the water mains to become injured from the settling of the ground, resulting, of course, in more or less leakage. Therefore, it was an easy matter for contaminated sewage to come in contact with one of these leaks, and for the sewage to enter the main at the time it was drained.

ILLINOIS.

Dr. Hill's Anniversary.—On March 12, Dr. William Hill, Bloomington, became 75 years old. In honor of the anniversary the older members of the profession and their wives were entertained at dinner and many useful and beautiful gifts were presented to the venerable host.

Personal.—Dr. John T. McAnally, Carbondale, who is now in Mexico, will return and resume practice April 1.——Dr. Brown Pusey, Chicago, has gone to Europe for a protracted period of study.——Dr. Charles P. Caldwell, Chicago, was severely injured, March 7, in a cable-car collision.

Communicable Diseases.—Supposed chicken-pox at Pisgah has been shown to be smallpox. There are said to be about 25 cases in 8 or 10 families.——Diphtheria has caused the mayor of Gilman to issue a proclamation closing schools and prohibiting public gatherings.——Scarlet fever is still spreading in Taylorville.

Charges Unproved.—The charges circulated against the assistant physician of Peoria County, of alleged flagrant and consistent neglect of duty, have been disproved by the county physician, who says that the trouble has arisen through a service rendered by courtesy only, and in which the judgment of a visiting nurse had been given precedence over that of a physician.

Chicago.

New Hospital for Englewood.—Rev. Bernard P. Murray of St. Bernard's Church, Englewood, has almost completed his plans for a hospital at Sixty-third Street and Harvard Avenue, to cost $200,000.

Ehrlich Coming to Chicago.—Prof. Paul Ehrlich, director of the Royal Prussian Institute of Experimental Therapeutics at Frankfort-on-the-Main, Germany, will be the representative of German medicine at the coming convocation at the University of Chicago, at which he will deliver an address, and will receive the degree of LL.D.

Will Draft New Ordinance.—A committee consisting of Drs. D. A. K. Steele, L. Blake Baldwin, A. J. Ochsner, Julius H. Hoelscher and Malcolm L. Harris, representing the various hospitals of the city, is engaged in drafting a new city hospital ordinance. The old ordinance is said to be so defective that no hospital could operate under its provisions if they were enforced.

Rules for Inspection of School Children.—Dr. Henry Hartung of the board of education has formulated the following routine for the examination of school children:

> Eyes.—Diseases of the conjunctiva and lachrymal apparatus, muscles of the eyeball, visual acuity, hypermetropia, myopia, astigmatism.
> Ears.—External ear, auditory meatus, drum membrane, hearing, acute or chronic diseases of middle ear.
> Mouth and Pharynx.—Defects of tongue, lips, palate, condition of teeth, hypertrophy of tonsils, pharyngitis, adenoids, granulations, etc.
> Nose.—Acute or chronic rhinitis, nasal hypertrophies, polypus, deflection of septum, etc.
> Chest.—Abnormal development, round shoulders, spinal deflection, diseases of the heart and lungs.
> Skin.—Acute or chronic affections, scabies. pediculosis, favus, etc.
> General Nutritional and Structural Disorders.—Anemia, chronic headaches, glandular enlargement, tuberculosis, deficiency of muscular development, nervousness, chorea, or any pathologic condition which may retard the pupil's growth or influence his progress in school work.

Erratic Mortality.—The total 549 deaths reported from all causes during the week ended March 12 are 76 fewer than those reported during the preceding week, and 82 fewer than those of the corresponding week of 1903. This, of itself, and for a single week, is not remarkable, although the annual rate, 14.75 per 1,000, is unusually low for March. One of the erratic features is the great reduction in the deaths of those over 60 years of age; the total 126 form only 23 per cent. of the total at all ages, while the average of such deaths for the previous nine weeks was 33 per cent. of the total. It might be explained that the previous rate had carried off an undue proportion of the aged; but the statement of mortality shows that chronic diseases such as consumption and cancer, whose victims are largely among the aged, caused 32 and 14 more deaths, respectively, than during the previous week. The marked and sudden increase of deaths from consumption—amounting to very nearly 40 per cent. more than the average of the previous nine weeks—coupled with a decrease of 23.5 per cent. in the deaths from pneumonia, forms another erratic feature. The 86 deaths from consumption are the greatest number ever reported in any single week, while the 127 pneumonia deaths are the fewest since the week of Dec. 26, 1903.

MARYLAND.

Personal.—Dr. J. Clement Clarke, Sykesville, has been reelected superintendent of the Springfield Hospital for the Insane.

Want Money for Asylums.—The authorities of Springfield Hospital for the Insane ask for $100,000 for buildings and $40,000 a year for maintenance. Those of Cambridge Hospital ask for $10,000 for building and $6,000 a year.

Tuberculosis Bills.—Two bills prepared by the tuberculosis commission are before the legislature. One provides for registration of tuberculous patients throughout the state; the other aims to prevent the spread of tuberculosis by requiring apartments occupied by tuberculous patients to be disinfected, and gives power to the local boards of health to do this, making it a misdemeanor for the owner to rent to other tenants without proper disinfection.

An Active Profession.—A large delegation of physicians went to Annapolis, March 8, to urge the appropriation for the new library building of the Medical and Chirurgical Faculty, but, nothwithstanding, the legislature rejected the application. With the view of discouraging any further inroads on its time the committee, through Dr. Hill, brought into the house the following order:

> Ordered that an additional room be assigned to the ways and means committee for the purpose of quarantining the letters received from the medical doctors of the state of Maryland in advocacy of a bill for the appropriation of $100.000 for a library building for the Medical and Chirurgical Faculty of Maryland. and that four stenographers and typewriters and six additional clerks be assigned to the committee, and that the postmaster be directed to deliver to the chairman of the committee $500 worth of stamps with which to answer the letters, and that a commission of attorneys

—of which Mr. George C. Morrison of Baltimore shall be chairman, at a salary of $5,000 per annum—be named by the speaker of this house to draw up the wills and settle the estates of all the members of the ways and means committee and take care of their widows and orphans, in the event of the failure of the legislature to appropriate the amount desired.

Baltimore.

Fire Alarm System in Hospital.—The Johns Hopkins Hospital has had installed a new fire-alarm system, with 13 stations and a volunteer fire department.

Personal.—Dr. St. Clair Spruill has gone to Jacksonville.——Dr. William S. Halsted will deliver the address at the next commencement of the Yale University Medical School.

Lung Disease Predominates.—While the death rate was lower 105 of the 282 deaths last week were due to affections of lungs and bronchial tubes. The rate per 1,000 for whites was 22.87; for colored, 48.29. Two cases of smallpox were reported, and there is still considerable prevalence of scarlet fever. The pneumonia deaths were 46 in number.

Bequests.—Mr. C. F. Mayer, ex-president of the B. and O. R. R., who died in Baltimore, February 24, made provision in his will for an ultimate handsome endowment fund for the Church Home and Infirmary, Baltimore.——Mr. Leopold Strouse, a Baltimore merchant, recently deceased, left $500 to the Hebrew Hospital and $2,000 to the Johns Hopkins University.

MASSACHUSETTS.

Composer's Bequests.—The will of William Francis Boott, the composer, devises $1,000 each to the Cambridge Hospital and to the Southbridge Hospital.

Made Residuary Legatee.—The Waltham City Hospital has been made the residuary legatee of the estate of Nathaniel A. Moody, which amounts to almost $28,000.

Illegal Practitioner Insane.—Ulric St. Pierre, New Bedford, who was recently fined $300 and sentenced to the house of correction, has been pronounced insane and committed to the Taunton Insane Hospital.

Fires in Hospitals.—Fire originating in an overheated furnace and appearing first in the operating room on Saturday, March 12, damaged the Melrose Hospital to the extent of $1,000. The patients were all removed safely, and are temporarily cared for in the Nurses' Home.——Fire in the Woburn Emergency Hospital, March 8, caused damage estimated at $1,000. The patients were removed in safety.

Personal.—Dr. Francis A. Bragg, Foxboro, has been nominated by the governor as medical examiner for the Sixth Norfolk district, vice Dr. J. C. Gallison, Franklin, deceased.——Dr. and Mrs. John R. Grouard, Nantucket, have sailed for Jamaica.——Dr. Forster H. Smith has been elected city physician of Lowell.——Dr. Marshall J. Mosher has been appointed physician to the Waltham Board of Health, and Drs. Edward F. Dowd, Charles A. Willis and Walter F. Adams, medical examiners of public schools.——Dr. Morton E. Cummings has been chosen as city physician of Malden, vice Dr. Richard H. Thompson.

To Avert Tetanus.—At a meeting of the Berkshire District Medical Society, February 26, the following preamble and resolution was passed:

> Whereas, Four hundred and six deaths from tetanus were reported as occurring in the United States in July, 1903, as a result of the Fourth of July celebration, 363 of these deaths having been caused by toy pistols loaded with blank cartridges, and 17 by cannon crackers.
>
> *Resolved*, That the Berkshire District Medical Society is in favor of any legislation and municipal ordinances which will effectively stop the sale and use of toy pistols, blank cartridges and cannon crackers.

Tufts College Announcements.—Tufts Medical School has increased its tuition fees from $125 to $150 a year. The following promotions and additions to the faculty are announced: Edward M. Plummer, M.D., professor of otology; Edward B. Lane, M.D., professor of mental diseases; Gardner W. Allen, M.D., assistant professor of genito-urinary surgery; Charles B. Painter, M.D., assistant professor of orthopedic surgery; John S. Ames, M.D., assistant professor of clinical medicine; Frank P. Williams, M.D., instructor in rectal diseases; Harry M. Germain, M.D., instructor in clinical surgery and assistant in anatomy; Luther G. Paul, M.D., instructor in clinical surgery; Scott McLeod, M.D., assistant in anatomy; Willis T. Middleton, M.D., assistant in anatomy; Frederick W. Stetson, M.D., assistant in clinical medicine, Arthur T. Legge, M.D., assistant in orthopedics; Leon E. White, M.D., assistant in otology; Walter E. Fernald, M.D., clinical lecturer on mental diseases; Charles M. Whitney, M.D., instructor in genito-urinary diseases, and William L. Ripley, M.D., instructor in physiology.

NEW YORK.

More Ratification.—Herkimer County Medical Society, at its annual meeting in Herkimer, March 8, passed a resolution endorsing the consolidation of the state medical society and association.

Schoolhouse for Hospital.—In Watertown, where it is said there are at least 500 cases of typhoid fever, the new high school building has been commandeered as a hospital by the board of health on the suggestion of the sanitary officer, Dr. George A. Soper, and is being used as a hospital, as the two local hospitals were overcrowded.

Insanity on the Increase.—The annual report of the state commissioner in lunacy says that 5,000 new cases developed during the year, 2,434 more than during the previous year. The total number of insane in all institutions was 25,934. There were 1,262 recoveries, a percentage of 24.72, as compared with 24.60 for the previous year.

Association to Consider Consolidation.—There will be a special meeting of the New York State Medical Association at the Academy of Medicine, New York City, March 21, to hear the report of the committee on conference of the New York State Medical Association, looking toward the union of that body and the Medical Society of the State of New York.

Personal.—Dr. Donald Ross, a member of the medical staff of the Willard State Hospital, has been appointed assistant physician to the Craig Colony for Epileptics at Sonyea.——Dr. John D. Malone, Newburgh, jumped from a trolley car while it was in motion, and sustained minor injuries. He sailed for Europe March 8.——Dr. Jesse S. Heiman won first place and Dr. Louis P. Gould second place in a competitive examination for house staff at St. Joseph's Hospital, Syracuse.

Infectious Pneumonia.—The increasing prevalence and death rate of pneumonia has been recognized by the State Health Department, which now announces that it will be given a separate column in the bulletin, instead of being grouped, as heretofore, with "acute respiratory diseases." The term "infectious" will include only the acute lobar pneumonia, and not catarrhal or broncho-pneumonia. The bulletin states that "while many prefixes to this name appear on our death returns, it is pretty safe to say that physicians generally understand the distinction as to the infectious disease we desire to specially record." The total number of deaths from pneumonia in the state during January was 1,510.

To Detect Defectives.—A state board of expert insanity experts, to be stationed at Ellis Island, to inspect immigrants as they land, with a view of detecting those in such stages of mental decline as would lead to their becoming public charges, is provided for in a bill introduced before the legislature in behalf of the State Commission in Lunacy. The total expense is estimated at not to exceed $25,000 per year, which would include one chief inspector at $5,000, two at $3,000, a male interpreter at $2,000, and a female interpreter at $1,500. The United States Marine Hospital has charge of this matter at present, but makes no provision for the employment of experts in insanity. The proposed bill is favored by Governor Odell and the lunacy commission.

Coroner's Bill Again.—Senator Elsberg has introduced his coroner's bill for greater New York, which failed to pass last year. The amended bill will allow the coroners now holding office to serve their full term, but the office will then be finally abolished. After January 1, 1905, the coroner's physicians will be transferred to a bureau of medical examiners in the department of health, in which department will be placed the jurisdiction of primarily investigating the causes of sudden and suspicious deaths in New York. From Jan. 1, 1905, to January, 1906, the latter being the expiration of the present coroner's term of office, the coroner's function will be limited to the holding of inquiries in like manner as city magistrates. After January, 1906, the coroner's office will be abolished and the medical functions will be entirely under the department of health, and the judicial functions in the hands of the city magistrates.

Buffalo.

Staff Elects Officers.—The medical staff of the Sisters of Charity Hospital elected officers as follows: President, Dr. James J. Mooney; vice-president, Dr. Charles S. Jewett, and secretary, Dr. Alfred E. Diehl.

Club Election.—The Physicians' Club, a private medical organization, has elected officers as follows: President, Dr. J. Henry Dowd; vice-president, Dr. Frederick M. Boyle, and secretary, Dr. W. K. Callahan. Resolutions were adopted recommending that an elementary course in hygiene especially pertaining to the prevention of tuberculosis be taught in the public schools.

County Hospital Report.—The annual report of the Erie County Hospital shows a total average population of 362, at an average cost of $4.59 per capita. This cost is slightly increased over the 1902 report because of the increase in coal, advance in salaries and many permanent improvements which have been made. The admissions in the different departments were as follows: Medical department, males 1049, females 344; surgical department, males 741, females 144, and gynecological and obstetrical department 118.

Superintendent for Raybrook.—Dr. John H. Pryor of Buffalo has been appointed superintendent of the New York Hospital for Tuberculosis at Raybrook in the Adirondacks. Dr. Pryor, who was the originator of a state hospital for tuberculosis, was appointed one of the trustees. In order to compete in the examination he resigned as trustee, and received the highest mark. The position pays a salary of $3,500 and maintenance, and the superintendent is privileged to have consulting practice. The hospital will be open for the reception of 100 patients June 1. Local examiners to determine eligible cases for the hospital will soon be announced.

Visitors Commend State Hospital.—The report of the board of visitors of the Buffalo State Hospital to the State Commission in Lunacy, praises the management of the hospital, and states that the hospital is not as in former years, overcrowded, the present number of patients being 1,648, with a capacity for 1,631. It speaks of the intelligence of the attendants and that patients in dress and person are clean. There is a fire drill, which is also commended. The food is of the most excellent quality. The nurses' home has been enlarged, and now is occupied by 74. Plans for a home for the superintendent are now in his hands, with instructions for the contracts. It is urgent that a separate building be constructed for the consumptive insane.

New York City.

New Sisters' Hospital.—The Sisters of the Poor of St. Francis are erecting a hospital in the Bronx, which will accommodate 350 patients.

Healer Imprisoned.—Peter Barr, self-styled "divine healer," has been sentenced to thirty days' imprisonment for practicing medicine without a license.

Prolongs Regular Session.—Long Island College Hospital announces that, as it has prolonged its regular session until June, the summer session has been discontinued.

First Aid Service in Parks.—In all the northern parks, emergency hospital tents are to be established during the spring, where the injured on the football and baseball fields and on the golf links may obtain prompt medical and surgical aid.

Cottage for Consumptives.—A cottage to be used as temporary quarters for cases of incipient tuberculosis is being erected on the lawn at Bellevue Hospital. It will contain but twelve beds, and if a greater demand is made, more cottages will be built.

Brooklyn Personals.—Drs. Elias H. Bartley and William F. Campbell have been elected trustees of the Bushwick Hospital. ——Dr. Frank A. Jennings, house surgeon of St. Catherine's Hospital, in recognition of his work during the past 15 months as house surgeon of the institution, was given a banquet by the visiting and house staffs, February 29.

Thousands for Sick Poor.—By the will of Miss Sarah Schermerhorn, $200,000 has been given to charity. Of this the mission work of Grace Church among the sick and poor receives $78,000; the general and fresh-air work of the New York Protestant Episcopal City Missionary Society, $25,000; the New York Institution for the Blind, $5,000, and the Home for Consumptives, Denver, $50,000.

New York Academy of Medicine.—A book just issued shows that there are 878 fellows, 98 associate fellows, 46 honorary fellows and 32 benefactors. The library contains over 80,000 bound volumes, about 36,000 pamphlets, and subscribes regularly to more than 1,200 current periodicals, comprising nearly all the medical journals, transactions of medical societies, hospital and boards of health reports published throughout the world.

Physicians' Building.—We are informed that a building, to be devoted to physicians' offices exclusively, at Madison Avenue and 58th Street, will be opened May 1. The owners allow a committee of lessees to pass judgment on all others who make application for suites, and the committee is making such careful selection that the experiment seems already a success. It is intended that the building shall be something in the nature of a club, with society meetings and other social features to make it attractive.

Mt. Sinai Hospital Open.—This new $3,000,000 hospital, occupying an entire block, will open its doors to the public this week. It is said to be one of the most perfectly equipped hospitals in the world; every modern scientific appliance needed has been installed, and from the basement to the roof-garden everything has been designed to make the building cheerful and comfortable. The air in the hospital is even filtered. There is an utter absence of sharp corners, or angles, thus minimizing dust accumulation and making cleaning easy. The building will house 456 patients comfortably.

PENNSYLVANIA.

Philadelphia.

Voodoo Doctor Must Hang.—George P. Hossey, the negro voodoo doctor convicted June 26, 1903, of the murder of William G. Danze, was sentenced to death by Judge Martin in the Criminal Court. Unsuccessful efforts had been made to secure a new trial.

Spitzka in Philadelphia.—On March 15, Dr. Edward C. Spitzka, New York, addressed the students of Jefferson Medical College, on "The Brain and Skull of Man and the Anthropoids." After the address he was tendered a reception by the F. X. Dercum Neurological Society at the University Club.

Friends' Asylum Resists Taxation.—The Friends' Asylum for the Insane, at Frankford, filed a bill in equity against Abington Township in order to restrain it from collecting road tax on a farm of 104 acres situated in said township. The plaintiff contends that as the institution is purely charitable, its property is exempt from taxation.

Polyclinic Hospital.—During February, 1,554 new cases were treated in the dispensaries of the Polyclinic Hospital, and 5,765 visits were paid, making a total of 7,319 cases treated in the dispensaries during the month; in the receiving ward 529 cases were treated during the same period; 83 patients were admitted to the wards of the hospital, and 93 were discharged.

New Laboratories Open in June.—The new medical laboratories of the University of Pennsylvania are to be opened June 10. The first meeting of the general committee of arrangements, of which Dr. Horatio C. Wood is chairman, has been called for March 19. It is proposed to send out more than 16,000 invitations. The American Medical Association will close its session at Atlantic City on that day, and the members will be asked to attend.

Maragliano to Address the Profession in Philadelphia.—Under the auspices of the Henry Phipps Institute, arrangements have been made with Dr. C. Maragliano, professor in the University of Genoa, and a senator in the Italian parliament, to lecture in this city, March 28, on "The Serum Treatment for Tuberculosis." Dr. Maragliano will be entertained by Dr. Flick, head of the Phipps Institute, and by other physicians. Efforts will be made to have him give one or more clinics in the hospitals of the city during his stay. He will arrive March 20.

Health Report.—Typhoid fever is still epidemic throughout the city, although there has been a decided falling off in the number of cases reported during the past week. The health authorities look for a continuance of high aggregate of cases of typhoid on account of the bad condition of the drinking water. There were 140 new cases of fever reported during the week, as compared with 195 for the previous seven days. The deaths numbered 25, an increase of 6. Smallpox broke out afresh in the early part of the week, and 48 new cases are reported, an increase of 15 over the previous week. There are now 115 smallpox patients in the Municipal Hospital, and it is estimated there are about 100 additional patients who are treated at their homes. The deaths from all causes during the week numbered 709, being an increase of 81 over those of last week, and an increase of 32 over the corresponding week of last year.

Danger Signals to City School Teachers.—On March 9, Dr. H. Augustus Wilson addressed the teachers of the public schools on "School Life and Its Relation to the Deformities of Childhood." He exhibited lantern slides showing the most common forms of deformity, many of which, he said, were due to studying in improper positions and at improperly constructed desks. He pointed out how curvature of the spine was caused by persistent faulty position in standing, sitting, sleeping and carrying heavy weights, like school books, on one side. He said that the primary inducing cause may also be due to defective vision or hearing, causing the child to keep its head in one position.

He spoke of limp as the danger signal of hidden destruction, and said it should never be disregarded He concluded by saying that whenever a child assumes persistently a faulty posture, whenever there is a limp, whenever there appears to be an increasing, languid, indolent, listless assumption of ab normal or faulty position the child should be kept under careful medical inspection

TEXAS.

State Association Meeting—The State Medical Association of Texas will hold its thirty sixth annual meeting at the University, Austin, April 26 to 29 inclusive

Hospital Dedicated—The Lawrence Johnston Clayton Emergency Hospital established by the All Saints' Hospital Association at Fort Worth, was dedicated March 7.

Donates Site for College.—Dr John O McReynolds, Dallas, has donated to the Southwestern University Medical College a plat of ground on which a medical college building will be erected

Banquet to Dr. Billings—The El Paso County Medical Society listened to an address by Dr Frank Billings, February 27, after which he was the guest of honor at a banquet given by the society

Cuspidors in Cars—The following rule, on March 31, will replace the previously existing clause in the disinfecting instructions of the state health officer, as applied to passenger coaches and sleeping cars.

> Each passenger coach or sleeping car used for passengers must be provided with one cuspidor for each two double seats, or every four chairs Each cuspidor must contain not less than six ounces of a disinfectant solution approved by this department The cuspidors to be emptied, washed in similar solution and replenished each trip or every twenty four hours

VIRGINIA.

Dr. Taylor Has Pneumonia.—Dr Hugh M Taylor is seriously ill with pleuro pneumonia at his home in Richmond He is reported to be making satisfactory progress

College Gets Appropriation—The annual appropriation of $5,000 for the Medical College of Virginia, after bitter opposition, was passed by the house of delegates, March 2

Mistrial in Unlicensed Practitioner's Case.—In the case of Mula Baksh, a "herb doctor," one of seven charged by the Norfolk Medical Association with practicing medicine without a license, the jury disagreed and was summarily discharged for the term

Would Aid Consumptives—The State Board of Health has forwarded to the legislature a report recommending the passage of a bill authorizing the governor to appoint a committee to consider the establishment of a sanitarium for consumptives, and to report to the next legislature It is stated that there are 12,000 cases in the state

County Health Report—The report of vital statistics of Elizabeth City County, prepared by the secretary to the board of health, Dr Walter Plecker, Hampton, shows a death rate for 1903, of 10 5 per 1 000 for whites, and 22 02 for colored, or 16 20 per 1,000 of all deaths Tuberculosis heads the list of death causes, closely followed by pneumonia and organic heart disease During the year 66 cases of typhoid fever, 31 of diphtheria and 6 of scarlet fever were reported

WASHINGTON.

Olympia Healthy.—The health officer of Olympia asserts that city is one of the most healthy in the United States During 1903 only 45 deaths occurred, a death rate of 6 per 1,000

Personal—Dr S B Nelson, Pullman, has been elected president, and Dr. Elmer E Heg, Seattle, re elected secretary of the State Board of Health——Dr John B Longhary has been chosen president of the Seattle Board of Health

Organization Stamps Out Smallpox—The annual report of the State Board of Health shows the benefits of organized effort in stamping out smallpox In April there were 202 cases of smallpox in the state, in May, 70, in June, 115, in July, 56, in August, 34, in September, 44, in October, 42, in November 28, and in December, 29

More Room Needed for Insane—The State Board of Control, after its February inspection, is said to have found that several of the state institutions are overcrowded, and will probably recommend an appropriation to cover the cost of additions to the state hospitals at Stellacoom, Walla Walla and Medical Lake The state has now 2,500 insane in its care, and the number is increasing rapidly

WISCONSIN.

Must Take Rest.—On advice of his physician, Dr. William H Earles, Milwaukee, will go to Southern California to regain his health, which has been impaired by overwork

State Board Moves—On and after April 1, the office of the secretary of the State Board of Health will be in Madison, and all communications intended for the board should be addressed to Dr Cornelius A. Harper, secretary, Madison, Wis

County Asylum Burned—Racine County Insane Asylum at Gatliff was burned to the ground, February 22 All the patients, numbering 133, were brought out in safety and taken to Racine The loss is $115,000, half of which is covered by insurance

A Good Law if Enforced.—The Milwaukee City Council, on March 7, passed an ordinance prohibiting spitting on the floors of public buildings, sidewalks and public vehicles, and providing a fine of $5, or ten days' imprisonment for conviction of violation of the ordinance.

Dr. Wingate Resumes Practice— Dr. U O B Wingate, Milwaukee, who for ten years has filled most admirably and ably the position of secretary of the State Board of Health, announces that on his retirement from that position, April 1, he will devote his time and attention entirely to medical practice

GENERAL.

Indians Have Smallpox.—The Indians in the Northwest of Canada are suffering from an epidemic of smallpox

First Aid in Pennsylvania Railway.—Plans have been approved by officials of the Pennsylvania Railway to place medical outfits, with stretchers, in stations and on trains, to be of service in case of accidents First aid instruction will be given the employes

Famous Foreigners at Atlantic City Session—Dr A Lorenz has announced his intention of being present at the next session of the American Medical Association at Atlantic City, June 7 to 10 He will come to Philadelphia as the guest of Dr. H Augustus Wilson about May 25 At the commencement exercises of the Jefferson Medical College, May 27, he will have conferred on him the honorary degree of LL D Dr Albert J Hoffa, professor in the University of Berlin, and Dr. Lorenz will hold an orthopedic clinic at the college, Monday morning, June 6, from 9 30 to 12.30 Arrangements are under way by which perhaps other eminent men from across the water will be present

FOREIGN.

Cancer Research in Greece—Question blanks were distributed to the physicians throughout Greece, and every one of the blanks was filled out and returned The total 56 physicians had only 7 cases of cancer to report in a population of 66,000 The stomach, uterus, tongue and breast were the organs affected

Radiology.—We notice that the *Riforma Medica*—which attempts to classify its abstracts—has now one department devoted to "Radiology" Works on radioactive substances and phototherapy in general are included under this title, which has supplanted the former heading of "Sensational Medicine" The sensation of yesterday is the work field of to day.

Vienna Anglo-Americans Organize—To further the interests of American physicians studying in Vienna, the Anglo American Medical Association was organized, February 22, with a membership of 68 The following officers were elected: Dr Amond Ravold, St Louis, president, Dr Ralph P Daniells, Chicago, vice president, and Dr F G Harris, Chicago, secretary and treasurer

Another Appeal for Brevity—This time it is the dignified *Deutsches Archiv f Klinische Medicin* which states that it has tried to keep pace with the constantly accumulating material by issuing its numbers at shorter intervals This increases the cost to both publishers and subscribers, while long articles drag through several numbers, and readers lose their interest From every point of view, therefore, it is advisable to reduce the amount of material The editors beseech all intending to contribute to its columns to condense their articles as much as possible They hint that the length of an article is liable to be in inverse proportion to the age and experience of the writer

Battle of the Clubs in Germany.—The demands of the medical officers of the sickness insurance societies for increased remuneration now that their term of service has been doubled by recent legislation, have been unexpectedly re enforced on the floor of the Prussian house of deputies by the minister of the interior department, who censured the lawmakers for ignoring the medical officers of the societies in this legislation. The organized stand taken by the profession in the matter has led to contention between the medical and the financial officers of the societies, and these words of a member of the Prussian cabinet are regarded as an indication that the government will sustain the profession in their moderate demands.

Sweden to Have a Medical Weekly.—Dr. K. Kjellberg of Stockholm has commenced the publication of a weekly medical journal, to be the official organ for the General Swedish Medical Association. The title is *Almänna Svenska Läkartidningen.* The first two numbers have been received and contain instructive articles on "Arrhenius and the Doctrine of Immunity"—a subject discussed editorially in these columns, page 651—and others on Finsen treatment of lupus, paraffin prothesis, etc. The list of collaborators on the journal includes Profs. E. Almqvist, J. Borelius, H. Köster and seventeen others. The journal *Eira* was previously the organ of this association, but it suspended publication on the death of its editor, Dr. Simon, last June.

The Age Limit for Professors in the French Universities.—"Few die and none resign" seems to apply to university professors as well as elsewhere. A Paris exchange gives a list of 17 professors who served until they died at 83, 86 or even at 92, all over 71. Eight professors resigned at the age of 72 to 82. These, with other data which it presents show that the imposition of an age limit was a wise measure. The limit was at first 70 and was then reduced to 55 and 60. The students' mode of protesting against the recent abolition of the age limit is not parliamentary, but as the *Gaz. Méd. de Paris* remarks, "it takes a small revolution to accomplish anything at Paris." The rioting has gradually subsided after a week or two of interference with the lectures. The students have organized and presented a petition to the authorities begging to have the age limit of 70 years restored.

Fifteenth International Medical Congress, Lisbon, 1906.—The first article of the official regulations for this congress establishes the date as April 19 to 26, 1906. The second article refers to membership, which is limited: 1, to physicians applying, and 2, to scientists, who shall be presented by the Portuguese executive committee or by the national committees of other lands. French is to be the official language for international relations, the committees setting aside their own language, the Portuguese, completely. In the general assemblies and section meetings English, French and German may be employed, and in the section meetings other languages may be used, provided the communication is followed at once by the same translated by some member into one of the languages permitted. All communications destined for the congress should be sent to the secretary general, Professor [illegible] Lisbon, before Jan. 1, 1906. They should be accompanied by a summary, which will be published and distributed to the members of the corresponding section by the congress authorities. Communications may be sent in later, but will then have to await their turn after those already on the order of the day have been disposed of. The subscription fee is $5, which can be paid to the treasurer, Prof. Alfredo Lopes of Lisbon, or to the national committee in each country.

Professor D'Antona's Acquittal.—Professor D'Antona of Naples is one of the leading surgeons of Italy and one of the most respected and beloved. He was made the defendant in a sensational suit under the following circumstances: He performed an exploratory laparotomy on a patient in the last stages of a liver affection. The conditions were found inoperable, as the family had been warned might be the case, and the abdomen was closed, leaving two hemostatic forceps and gauze tampons. The following day he removed the forceps and some of the gauze strips, and then, as usual, left the further care of the case to the surgical personnel of the Pace Hospital. The gauze tampons were renewed several times, and the family, profiting by the temporary improvement in the condition after the laparotomy, removed the patient from Naples to Campobasso, where he died three days after his arrival. The necropsy revealed an ascitic-purulent accumulation at the inner end of the gauze. The family instituted criminal proceedings against Professor D'Antona, accusing him of "homicide from imprudence." The committee of six medical experts testifying in the case included Foa, Bassini and Novara, and their report was to the effect that the condition of the patient was so precarious that the leaving of the gauze in the abdomen was most certainly not the cause of the fatal termination, and that it was very doubtful whether it had hastened it. The case was appealed from court to court, but the supreme court has finally fully exonerated Professor D'Antona, who received an ovation from his friends and students when he returned to Naples, February 15. The final trial was before the senate of the realm, which resolved itself into the supreme tribunal for the purpose, as Professor D'Antona is a senator. Seventy witnesses were examined.

Anti-quack Legislation in Baden.—The various states of Germany leave much to the discretion of the local authorities in the matter of repressing quackery. Baden has now taken the lead in more drastic measures, and the Landtag is now considering a bill, endorsed by the government, which provides for a fine of $40 or imprisonment for charlatans whose practices conflict with the interests of public health or morality or with the decrees issued to protect the populace against swindling. The same penalty is imposed for publicly announcing or advertising misleading notices in regard to competency, special training or successes or making exaggerated promises or proposing to treat patients without a personal examination (absent treatment). The same penalty is imposed likewise for announcing or advertising drugs whose free sale is prohibited or means for preventing conception. These regulations do not apply to announcements in the medical press. Dr. Julian Marcuse of Mannheim writes to the *Berliner klinische Wochenschrift* that the new bill realizes several of the wishes of the profession, which the authorities have always declared impracticable. The bill makes the editors of journals also responsible for publishing extravagant ads, and it puts an end to the distributing of circulars, pamphlets, etc., by quacks. The market-crier style of advertising is forbidden both for quacks and for registered physicians. Marcuse finds nothing to criticise in the entire bill except the reference to means to prevent conception, which he thinks had better be omitted. In all other respects the bill is a model which he hopes will find imitation elsewhere. Its passage in the Landtag seems to be assured. It is pointed out that when it is legally forbidden to advertise in true charlatan style and distant treatment is also forbidden under penalty, the circles in the populace who pin their faith to what they read in print—and these circles are larger than is generally recognized—will be protected against injury to health and life as well as pocket.

DUBLIN LETTER.

Amalgamation of Hospitals.

An interesting event took place here lately in the completion of the scheme for the amalgamation of the ophthalmic hospitals. For the past twenty years it has been proposed that St. Mark's Ophthalmic Hospital and the National Eye and Ear Hospital should join their resources to form one large and efficient institution. After much opposition the outlines of the arrangement were agreed to, and in 1896 a great bazaar was held to provide funds to build an entirely new hospital. Since then, though still working as separate branches, the two old hospitals have had their management in common, but within the last few weeks the new building has been finished, and the patients have been transferred to it. The result will be that more work can be done in better surroundings, with much greater economy. It is a pity that some of the other Dublin hospitals do not follow the example set them by the ophthalmic hospitals, a course recommended twenty years ago by a viceregal commission; for a more wasteful system than the present one can not devise. In a city of about quarter of a million inhabitants there are no less than ten general clinical hospitals. The largest of these contains about three hundred and fifty beds, but most of them have only a hundred or less. Each of them is overstaffed, but as the medical attendants are none of them paid, this may not be a disadvantage. Indeed, as long as good men are to be had, and the medical profession of Dublin stands very high, it is no harm to keep many men attached to a hospital. But the expenses of management are enormously increased by the multiplicity of institutions, and students are unable to see a great variety of cases. It must be remembered, however, that none of the hospitals possesses medical schools, the schools being separate educational institutions. Outside pressure has frequently been brought to bear on the hospital authorities to persuade them to amalgamate some of the smaller institutions, but conservatism and vested interests have kept the day.

Royal Academy of Medicine.

The Royal Academy of Medicine has just published its proceedings for 1903—a volume which is supposed to represent the scientific work of the profession in Ireland. Though it contains many interesting contributions on clinical cases, on the whole it is a disappointing collection. Each physician is content to furnish a description of his case, but the whole volume does not contain what can be called a complete article. The references to literature are most meager, and the whole tone is lamentably insular. Things have sadly changed since the days when Dublin physicians—Graves, Stokes, and their contemporaries—wrote in such a way as to make the Dublin school famous throughout the world, not only for clinical acumen, but for broad scholarship and classical style of literary composition. Nowadays we look to your side of the seas for medical men who can write sound and clear English, and we take our models in Wendell Holmes, Weir Mitchell and Osler.

Pollution of Shellfish by Sewage.

A valuable research into the conditions of the oyster-beds and other shellfish layings on the Irish coast has just been made by the officers of the local government board. The object of the inquiry was to discover to what degree the various layings were liable to sewage contamination, and two series of investigations were made. An inspector, Dr. Brown, made a topical examination of the various localities, and noted the nearest points of sewage outfall, and of discharge of surface drainage. His opinions constitute one part of the report, while the second part consists of the investigations of the board's bacteriologist, Dr. McWeeney, into the condition of shellfish sent him from each bed by the inspector. Each gentleman formed his conclusions independently of the other, and a comparison of the two reports is consequently very interesting. The bacteriologist takes as his standard of purity the absence of *B. coli* and *B. enteritidis sporogenes*, although recognizing that the habitat of these germs in nature is still doubtful. The test is in all probability somewhat rigorous, and should not be considered final for practical purposes, unless borne out by local examination. In every case in which the inspector believed contamination either probable or possible, Dr. McWeeney found evidence of fecal pollution, although in some the number of organisms present was very small. The result as a whole shows that at the present time the majority of Irish beds are in an unsanitary condition, some of them, as, for instance, all those in Dublin Bay, being positively bathed in sewage. On the other hand, there are many beds, particularly on the west coast, absolutely free from all possibility of contamination, and as there is unlimited expanse of pure seaboard still available the industry should not eventually suffer.

LONDON LETTER.

Striking Success of the Anti-Malarial Expedition to Ismailia.

Sir Alfred Jones, the munificent patron of the Liverpool School of Tropical Medicine, entertained a company of merchants and scientists to meet Professor Boyce on his return from Egypt and to receive his report on the anti-malarial expedition to Ismailia. The results are striking. When Major Ross visited Ismailia in September, 1902, there were 2,000 cases of malaria annually in a population of 9,000, of whom 2,000 were Europeans. The authorities carried out Major Ross' suggestions as to filling up marsh land and clearing out small irrigating channels and stagnant waters, at an expense of $22,000. They organized a drains brigade and a petroleum brigade. As a result people can now sleep in any of the European quarters without mosquito nets. The annual number of cases of malaria was reduced to 200. No fresh cases occurred, and there were no deaths in the year among Europeans, and only four among natives, against 30 deaths the year before. So great was the improvement that Prince d'Arenberg, president of the Suez Canal Company, hoped before two years to see Ismailia regarded as a sanatorium and watering-place for Cairo. Tropical medicine is showing that we have been for centuries cultivating medicine applicable to our own country and domestic life and neglecting our great empire all over the world. The time has come when medicine applicable to the whole world must be taught. Major Ross said that the success of the anti-malarial campaign at Ismailia had taught two things—that a large town could be entirely rid of mosquitoes and that it was equally possible to eradicate malaria. He has been asked by the government to draw up a report on malaria in India, where among the troops and the gaol prisoners 300,000 cases are admitted to hospital per annum. With the results obtained in Ismailia before him he is confident that this immense admission rate can be reduced to one-third.

Ambidexterity.

A society for the promotion of ambidexterity has been formed under the name of "The Ambidextral Culture Society." The list of members contains some prominent names in medicine, and among the laity, such as Mr. Noble Smith, the orthopedic surgeon, Sir James Sawyer, Lady Florence Dixie, and the professors of natural history at the universities of Edinburgh and St. Andrews. Among the subjects on the syllabus for discussion are "Ambidexterity in the Infant School," "Physiology of Simultaneous Ambidextral Work," "Ambidexterity in Angling," and "Ambidexterity from the Medical Point of View."

The Cambridge Diploma in Tropical Medicine.

The great advances recently made in tropical medicine, as previously stated in The Journal, have led to the establishment of a diploma in that subject by the University of Cambridge. In Germany and France military, naval and colonial physicians are required to attend courses in tropical medicine before taking up their duties. There are indications that similar regulations will soon be applied to physicians desiring to enter the British service abroad or to engage in medical missionary work. In a recent colonial office circular it is proposed that colonial government physicians shall pass an examination to obtain a certificate of efficiency in tropical medicine. The government has encouraged Cambridge University to institute a test in the knowledge of tropical diseases. The examination will be held once a year. As evidence of study and attainments candidates may present records of work done in tropical medicine and any diploma of public health or sanitary science. Such evidence will be considered as a qualification for admission to the examination, and will also count in the examination. The examination will comprise: 1. Methods of pathologic and bacteriologic investigation, examination of the blood. The characters, diagnosis and life history of animal and vegetable parasites. The examination, chemical and microscopic, of poisonous or contaminated foods and waters. 2. The origin, pathology, propagation, distribution, prevention, symptoms, diagnosis and treatment of the epidemic, endemic and other diseases of tropical climates, including malarial fever, blackwater fever, trypanosomiasis, relapsing fever, dengue, yellow fever, plague, tetanus, beri-beri, dysentery and hepatic abscess, cholera, enteric fever, Malta fever, specific diarrheal affections of the tropics, disease due to cestodes and other worms, filariasis, bilharzial disease, specific boils, sores and other cutaneous affections, mycetoma, ophthalmic affections of the tropics, affections caused by poisonous plants and animals and by poisoned weapons, and sunstroke. 3. The general effects on health in the tropics of seasons and climate, soil, water and food. Personal hygiene, acclimatization. Principles of general hygiene, with special reference to food and water supplies, sites, dwellings, drainage, and the disposal of refuse. The sanitation of native quarters, camps, plantations, factories, hospitals, and asylums, gaols, pilgrim and coolie ships. Principles and methods of disinfection. Each candidate must pay a fee of $35 before admission or readmission to examination.

Benzine in Coal Gas.

In a paper read at the Royal Society Dr. R. Staehelin stated that when frogs are exposed to coal gas motor phenomena are produced which are absent if the gas is previously purified by passage through oil and that these phenomena can be reproduced if the purified gas is made to take up benzine vapor. The investigation had its origin in a paper by Vahlen, who maintained that coal gas and carbon monoxid differed in poisonous action and that the former produced in frogs excitatory phenomena which were absent in animals exposed to the latter. In warm-blooded animals this difference was not observed. Benzine administered to rabbits and guinea-pigs by inhalation appears to produce no effect. This tends to show that in man benzine plays no part in coal-gas poisoning. However, benzine vapor is described by Mr. Wynter Blyth, the toxicologist, as producing tinnitus, convulsive trembling, twitching of the muscles and dyspnea.

Correspondence.

The Patenting of Surgical Instruments.

Denver, Colo., March 11, 1904.

To the Editor:—At the present time medical ethics prevent the best men in medicine from patenting various appurtenances which their brains, experience and philanthropy may have caused them to bring into existence. Such a generous stand is evidently taken in order that humanity in general, and the medical profession in particuar, may be benefited thereby; in fact, the motives are too obvious to require discussion. In other words, a man of medical genius is supposed to give freely of the fruits of his labor, and suffering mankind is supposed to be the recipient. Why, then, is it that physicians are shortsighted, careless and improvident as to overlook the fact that their gifts never reach those for whom they were intended?

The above may seem a broad statement, but it is nevertheless true, and should be given consideration. For instance, take any of the various instruments that have been introduced into surgery in the last few years and let us run over approximately their usual history. The inventor, usually a man of experience and brains, after much thought and trouble evolves in his mind a method whereby some pathologic condition may be rendered more amenable to treatment. To carry out his idea he designs a new instrument and consults some local instrument maker, in order to test his theory. After a trial or two, and probably considerable expense, the instrument maker accomplishes his object, and the instrument is produced according to the author's idea.

Then, after a few months' use, the inventor finds his object accomplished, and next negotiates with the manufacturer. The mercantile gentleman just alluded to at once procures a patent, and straightway raises the price to any figure that may suit him; and what is the result? Where is the public? How about a brother practitioner? Where is the philanthropy? And what is the outcome of this benevolent and misguided ruling of medical ethics? Simply this: The price of the article is just as high as if the inventor had procured the patent and received the profits himself.

Better no ethics at all than the present methods. since then, at least, the man who deserves the credit—the inventor—would be benefited.

I do not pretend to be a reformer, but I would rather respect established customs when possible, yet the question here arises: Can not these matters be rendered more consistent? Would it not be better to have these articles patented by medical men, and thus control the market? Or, if ethics would not trust the inventor thus far, would it not be better to establish a national committee to hold such patents and look after the production of such instruments, maintaining the standard of quality and holding the prices down to a reasonable figure? The organization could probably be made self-sustaining by the exaction of small royalties, and prosecutions of infringements carried on by funds thus derived.

More difficult matters than these have been overcome and regulated; why not, then, these also?

M. E. Preston.

Hospital Experience Necessary for Licensure.

Loring, La., March 10, 1904.

To the Editor:—In The Journal, March 5, Dr. Lawrence Holmes of Asheville, N. C., advocates the rejection, by statutory law, of all candidates for licensure who have not had one year of interneship in a good hospital. No one will deny that a year in a good hospital would be of incalculable value to the prospective physician; but there are various reasons why this is not practicable. Internes must generally bear their own expenses, as no compensation is provided. None but the wealthy, or sons of the wealthy, could avail themselves of this privilege under these conditions. This would make of the medical profession a privileged class, much as the officers of the English army, whose incompetence some say is notorious.

I think that the statement that "internes are composed of the best class of students" is not true.

The hospital-trained student would not be so practical a man for the rural district, other things being equal, as the one not so trained. The country physician, miles from assistance, in the cabin or shack, comes face to face with situations and emergencies which he must handle alone, and which your hospital interne, with his ideas of trained nurses, assistants, etc., could never pass through successfully.

Your correspondent cites the case of the young man who was ignorant regarding syringomyelia, and yet this ignorant young man was allowed to practice on an innocent and unsuspecting public. Now, with all due respect to Dr. Holmes, I would like to ask if he ever diagnosed, absolutely and positively, a case of syringomyelia, except on the postmortem table.

In "Diseases of the Nervous System," by Hirt, on page 471, is the following: "The practical significance of these (postmortem) abnormalities is not great, as, for one thing, the signs during life are so uncertain and changeable that a correct diagnosis has almost to be regarded as accidental; and secondly, because the disease, even if recognized, is not at all accessible to any treatment." Does that look as if the man who was ignorant of syringomyelia was so grossly incompetent, when the expert acknowledges that he can not recognize the disease and can not treat it, if by accident he happens to make a correct diagnosis?

By all means, let us have a uniform and reasonable standard of qualifications for entrance to the medical profession. But, in my opinion, it only hinders reform to make ridiculous proposals.

F. C. Bennett, M.D.

Eyestrain as a Cause of Headache and Other Nervous Symptoms—A Question of Precedence.

Philadelphia, March 12, 1904.

To the Editor:—Concerning the courteous note of Dr. A. L. Ranney, under the above heading in The Journal March 12, kindly permit me a few words of reply. I am conversant with the literature to which Dr. Ranney points, and it has always given me pleasure to emphasize the discoveries in medical science made by Americans.

To Dr. Stevens and to Dr. Ranney credit is due for the first, continuous and indefatigable advocacy of the rôle of heterophoria in causing eyestrain and its reflexes. But my contention is a very different one. I believe that heterophoria has no influence or but little in causing eyestrain or the reflex ocular neuroses under discussion. In my writings, I have persistently advocated the view that tenotomy is not only unnecessary, but is really a prevention of cure. To me heterophoria is one of the results of eyestrain, and what success I have had in stopping the eyestrain reflexes and results of eyestrain has been gained without a single tenotomy. Moreover, I feel convinced that this error in the treatment of heterophoria by tenotomy in directing attention to an effect instead of to the cause of eyestrain, has had the most pernicious of consequences. In the minds of the large majority of the American medical profession tenotomy has proved to be without curative effect on the systemic reflexes of eye strain, and in the disappointment at the failure and continued overemphasis of this theory, the true theory of the cause in ametropia and of the real cure by scientific lenses, has been overwhelmed in undeserved, indiscriminate and unscientific opprobrium. I could demonstrate this by any number of quotations from reviews, editorials, etc., from medical journals. In my sketch of "The History of Migraine," etc., I was interested only in what I think the line of progress—the main or trunk line—and not in an unused switch which runs to a deserted mining camp. The article of Martin, to which I alluded, contended that migraine was due to astigmatism, heterophoria not being mentioned. Martin's article was the first clear statement with which I am acquainted of the truth that migraine is due to ametropia. Personally I do not altogether agree with Martin as to some details, but I think his contribution is an epoch-making one, and in the line of definite and continuous progress.

Geo. M. Gould.

Membership in the Approaching International Medical Congress.

[Translation.]

Lisbon, Feb. 24, 1904.

To the Editor:—In No. 5 of The Journal (Jan. 30, 1904), I read under the heading "Admission to International Congresses" a notice to the effect that the national committee for Great Britain had adopted a resolution that the membership of international medical congresses shall in future be limited to physicians, and that this resolution was forwarded to the executive committee of the approaching International Medical Congress at Lisbon.

Allow me to inform you that no resolution of this kind has been received by the executive committee of the congress, and that the Article 2 of the Regulations, which restricts to physicians alone admittance as members to the congress, was drawn up by the executive committee last June, and was unanimously adopted by the committee of organization and publicity at its meeting in October, 1903.

It is, therefore, exclusively to *these committees* that the honor (if honor it be) is due of having restored to the international medical congresses the exclusively medical character which they had always maintained until the Madrid Congress.

I may be permitted to add that the president of the national committee for Great Britain received a copy of the regulations of the congress in December, 1903, and formally congratulated the executive committee on the form given to the article in question.

I shall be much obliged if in an early number of The Journal you will correct in accordance with the facts the notice to which this explanation refers.

Miguel Bombarda, Secretary General.

Hôpital de Rilhafolles.

[The committees of the congress are to be congratulated on taking this wise action, before they received any official request so to do.—Ed.]

A Study of a Case of Green Urine.

Jackson, La., March 8, 1904.

To the Editor:—Apropos of the article of Dr. Cooper with the above title, in The Journal March 5, page 638, is the following case: While an interne of the Charity Hospital, New Orleans, during 1901, I was called about 2 o'clock one morning to a patient suffering from urinary retention. I found a young negro man with a greatly distended bladder. He was easily catheterized, and an unusually large quantity of urine of a beautiful light-green color was withdrawn. He informed me that he had been taking some pills which he had purchased at a nearby drug store, and which had been recommended to him by the druggist for the cure of "lost manhood." He showed me several of the pills, together with the vial containing them. They were coated with some white substance, and the essential substance was in appearance not unlike methylene blue. The directions were one three times daily. Apparently they were prepared by the local druggist. The druggist had told the man to watch the color of the urine for evidence of the proper effect of the medicine. The patient had been passing green urine for several days before retention took place, and up to that time he was very much elated over what the pills were doing for him. There was no appreciable stricture, nor had he suffered from retention before, according to his statement. It occurred to me at the time that the drug ingested, either through the medium of the urine or by its systemic effects, had caused the retention. There were no other apparent effects, except the psychic, before the man learned better. Unfortunately neither the urine nor pills were carefully examined.

E. M. Hummel, M.D.

The Circulating Medical Article.

Chicago, March 14, 1904.

To the Editor:—Apropos of your editorial on "The Circulating Medical Article" (The Journal, March 12, 1904, p. 716), the following letter from Professor Finsen is of interest. It is in reply to a letter from me calling attention to the way in which his name and the reputation of his institute are being misused in this country:

Kopenhagen, Feb. 2, 1904.

Professor Dr. Wm. Allen Pusey.

Dear Sir:—Thanking you for your letter, I can not but highly regret the abuse which is made of my name. I have not the least to do with the matter, which you speak of in your letter, and there are nowhere "branches" of the Finsen Light Institute, consequently in America neither.

On the other hand, I am hospitable to all physicians, ... but as you understand it is impossible to me to control the people and to know whether they are going to abuse my name later on or not.

My name is also highly abused here in Europe, but I have been obliged quite to give up to take the matter into my hands, as it would cost too much time and pain, and yet be of very little use.

With my best thanks, Yours faithfully, Niels R. Finsen.

It must take a good many Christian virtues to be a scientist like Finsen, and to not be a misanthrope.

W. A. Pusey.

A Disclaimer.

Richmond, Va., March 14, 1904.

To the Editor:—It has just come to our notice that one J. Sills Daniels, M.D., of this city, the proprietor of a so-called cancer-cure sanitarium, and sanitarium for the treatment of diseases of women, especially obstetric cases, an asylum for the unfortunate, etc., who also offers a diploma as a member of the hospital staff for a consideration to any physician desiring it, has without our knowledge or authority, announced us as consulting physicians of the said sanitarium. We desire to stamp such a statement as a piece of unwarranted impertinence, and absolutely without any foundation in truth.

Signed: J. N. Upshur, M.D.,
Jacob Michaux, M.D.
Landon B. Edwards, M.D.,
Ramon D. Garcin, M.D.,
B. L. Taliaferro, M.D.

Queries and Minor Notes.

Anonymous Communications will not be noticed. Queries for this column must be accompanied by the writer's name and address, but the request of the writer not to publish his name will be faithfully observed.

CHARGES FOR SERVICES TO PHYSICIANS AND THEIR FAMILIES.

Denver, March 10, 1904.

To the Editor:—In The Journal, March 5, there appears a communication from Dr. B. P. Anderson of Colorado Springs, relative to a bill rendered him for professional services to his daughter by a physician residing in New York City. From the evidence presented it would appear that our New York friend is engaged in "small business," under the circumstances in which the bill was presented to Dr. Anderson. Dr. Anderson, however, in alluding to the incident, deals with this misguided physician in a most lenient and gentlemanly manner, as he fails to either mention his name or give his address. As a matter of reference to other members of the profession I would suggest that the name and address of this man be published in the columns of The Journal. The medical profession is filled with men of big hearts, men who stand true to the ideals of the framers of the Principles of Ethics, men who *cheerfully respond day or night to the calls of their colleagues* and their families with never a thought of remuneration. The conduct of this physician who attended a member of Dr. Anderson's family must be condemned by all decent men in the profession.

Clarence L. Wheaton, M.D.

632 Seventeenth St.

New York City, March 8, 1904.

To the Editor:—Under the above caption Dr. B. P. Anderson asks for information and quotes an instance in The Journal, March 5, 1904. The question is one to which some of us have to give pretty serious consideration, and perhaps it would be well to have the question discussed with reference to personal experience, as the matter is one *that can not be* covered in all of its features by the Principles of Ethics. There are no doubt some consultants whose entire time could be devoted to physicians and their families. Personally, I find that, averaging by the year, one-tenth of my work is for physicians. When I am so busy that it becomes necessary to charge physicians for operative work or *for consultation I shall* have so much money that it will not be necessary to charge physicians for operative work or for consultation. There is, however, a side feature requiring consideration, and that is time loss for out-of-town work. This means a direct and immediate loss of money, and it has been necessary to make the same charge to physicians that would be made to laymen for time. I do not want pay for work, and, *in fact, feel* uncomfortable if a physician feels that he ought to make me a present. Most of us, I am sure, consider it a privilege and a pleasure to help out a colleague who is in trouble. On the other hand, in choosing a physician for my own family it was stipulated that he should charge full fees for visits, on the ground that it left us free to call him in whenever we wanted him, and often when he would know that there was no real necessity for calling. There is a good deal of comfort that is worth all that it costs in feeling free to call in the physician whenever he is wanted, and not when he wants to come, and under such circumstances he should receive proper compensation. Robert T. Morris.

58 West 56th St.

Note.—Apropos to the above we quote the following from the Principles of Ethics: "Compensation for expenses. When a physician is summoned from a distance to the bedside of a colleague in easy financial circumstances, a compensation, proportionate to traveling expenses and the pecuniary loss entailed by absence from the accustomed field of professional labor, should be made by the patient or relatives."

ADHESIONS BETWEEN UTERUS AND RETAINED FETUS.

Clifty, Ky., March 2, 1904.

To the Editor:—Recently there came under my observation a case in which there were adhesions between the fetus and upper cervical wall of the uterus; the adhesions corresponding to a point about the seventh cervical vertebra and a little below the internal os. This woman carried the child twelve months. When I saw her the membranes had been ruptured and the occiput was under the pubic arch. She never knew of any water escaping from her. Now I am unable to find in my text books anything that proves my observation. Playfair cites the three celebrated cases of Drs. Oldham, Simpson and Cheston; in one case the child remained in uterus fifty-two years without decomposition, and in another the fetus wore out a hole through the uterine wall and gut, but he fails to state whether adhesions caused that or not. I believe the condition I have outlined is possible, since we know that ulcerations and wounds can affect the fetus without destroying its life, and we also know that ulcerations and ruptures of the membranes do occur without expelling the contents of the uterus, hence the possibility of two raw surfaces coming together and adhesion resulting. Is there a case on record which shows the possibility of such condition? If not, what is your opinion?

H. A. Elkomis.

Answer.—The report of this case is extremely unsatisfactory. Was the child living or dead? If alive, of course there must be some mistake about its having been carried twelve months. If dead, it was a case of missed labor. What was its condition? Was there a beginning lithopedion formation or a calcareous degeneration? Then the exact history of the pregnancy should have been given and the phenomena that probably occurred at the end of nine months or at the death of the child. The history of the termination of labor and final result should also be given. In cases of missed labor or missed abortion, that is, in retention of a dead fetus in the uterus, petrifying infiltration frequently occurs. Deposits are made in the membranes, the skin of the fetus and in the uterine decidua. In this way extensive adhesions may eventually form between the fetus and the uterus. Without further data to judge from, it seems probable that the adhesion found in the case reported was produced in this way. It was therefore the result of the retention of the fetus and not the cause, as seems to have been assumed by our correspondent.

PNEUMONIA MORTALITY.

Fort Smith, Ark., March 8, 1904.

To the Editor:—Will you please give me the death rate from pneumonia according to the Census of the United States for the year 1900? Will you also tell me where to find the death rate from this disease in New York, Chicago and Boston during the last twenty years? Are there any statistics to prove that the death rate from pneumonia has been increasing during the past ten years?

James A. Foltz.

Answer.—According to the U. S. Census the death rate per 10,000 in 1890 was 186.9, and for 1900, 192. This applies to the registration area which includes the New England states, New York, New Jersey, the District of Columbia and a few others. The best way to obtain the death rate in the larger cities would be to write direct to the departments of health, who could give the desired information. Nearly all the statistics of the cities in the northern part of the country show a decided increase in pneumonia in the last ten years. It, however, commenced before that time in many parts, in Chicago, for example. We think the municipal health departments and the secretaries of the boards of health of the different states would afford the best information in this regard. In many of the states there is no accurate registration, but in the larger cities a record of the deaths from all causes is being kept.

DISAPPEARANCE OF SYMPTOMS OF URETHRAL STRICTURE OF FOURTEEN YEARS' DURATION AFTER A SINGLE SOUNDING.

B. T. Simpson, Buffalo, N. Y., sends us a report of a patient [illegible] had specific urethritis at 18, and five months later [illegible]ine diminished in size and force. The difficulty increased with years, so that he consulted Dr. Simpson, who passed a *bougie à boule*, size 12 French, without detecting any stricture. There was, however, some difficulty in passing the sphincter muscle. He then introduced successively steel sounds, Nos. 16, 20, 24 and 26, without difficulty. All symptoms disappeared and the patient could pass his urine freely and with considerable force. Nine months later there had been no recurrence of any of the symptoms. Dr. Simpson considers the case one of spasmodic stricture. This case is not extremely rare, but the length of time during which the case remained without relief is unusual.

BOOKS ON CLIMATOLOGY.

———, March 12, 1904.

To the Editor:—Can you give me the names and publishers of late works on climatology, including that of the seacoast? Not too voluminous.

P. A. W.

Answer.—Large works on therapeutics like that edited by Solis-Cohen contain more or less thorough memoirs on the climatology from a medical point of view. (This volume was reviewed in The Journal, June 21, 1902, p. 1638.) For a general statement of the facts on climatology as a science perhaps one of the best works is the "Handbook of Climatology," by Dr. Hann (Professor Ward's translation), published by Macmillan & Co., price $3.00 net. It is not strictly a medical book, but its medical bearings are easily picked out in the text. It is a good work for the general reader and especially for the physician.

RIGHT TO PRACTICE—TEMPORARY ABSENCE FROM A STATE.

Guantanamo, Cuba, March 1, 1904.

To the Editor:—Please inform me whether one holding a certificate to practice medicine in Missouri, obtained in 1901, before the new act went into effect, and who then came into the service of the United States, is eligible to return and take up a practice, or is his certificate null after a certain length of time? It was registered with a county clerk in December, 1902. Will you give me the names of the secretaries of the boards of Missouri and Michigan?

E. G. B.

Answer.—The certificate is not nullified by absence. The secretary of the Missouri board is Dr. Winn F. Morrow, Kansas City; of the Michigan board, Dr. B. D. Harison, Sault Ste. Marie.

THE DEATH OF DR. ROBERT D. MURRAY.

More than one correspondent has expressed surprise at having seen no notice in The Journal of the death of Dr. Robert D. Murray, whom they consider as certainly worthy of mention. Dr. Murray died Nov. 22, 1903, and a notice of his death appeared in The Journal, Nov. 28, 1903, six days later.

Marriages.

Robert B. Spalding, M.D., Clinton, Ill., to Miss Nanna M. Scott, at Selma, Cal., March 6.

Charles Edward Wright, M.D., to Miss Katrina Fertig, both of Indianapolis, March 1.

Charles E. Cord, M.D., Chicago Heights, Ill., to Mrs. Laura Beeler of Chicago, February 27.

Lorin C. Collins, M.D., Chicago, to Miss Anna R. Fan Stoff Lindblad, at Wheaton, Ill., March 10.

L. Lenton Culp, M.D., Little Eagle, S. D., to Miss Blanche Cornelius of Columbia City, Ind., Oct. 8, 1903.

Bruce Anderson, M.D., Paris, Ky., to Miss Chorine Kern of Bourbon County, Ky., at Lexington, Ky., March 8.

McMillan Rowley, M.D., Downey, Cal., to Miss Bessie Sutton of Denver, at Los Angeles, Cal., February 19.

R. Elmore Rowland, M.D., Eldorado, Ark., to Miss Georgia Henry of Lancaster, Ky., at Little Rock, Ark., February 25.

George Kapelle de Kapelle, M.D., Mount Vernon, N. Y., to Miss Jane L. Sturtevant of New York City, at New Rochelle, N. Y., February 27.

D. I. Askren, M.D., formerly of Mount Ayr, Iowa, but now a medical missionary at Medinet-el-Fayoum, Egypt, to Miss Alice B. Underwood, at Assiout, Egypt, February 10.

Deaths.

Ralph Schuyler Goodwin, M.D. College of Physicians and Surgeons, New York, 1866, some-time president of the Connecticut Medical Society, and of the Litchfield County Medical

Society; for sixteen years a member of the State Board of Health; member of the American Academy of Medicine and American Public Health Association; health officer of Thomaston, Conn., died at his home in that place, March 5, from Bright's disease, after an illness of one month, aged 64.

William J. McDermott, M.D. New York University, 1854, surgeon in the Civil War, who was with Colonel Ellsworth when he was shot at Alexandria, Va., aided in the amputation of the arm of Gen. O. O. Howard, and was a prisoner in Libby Prison; a personal friend of Presidents Lincoln and Grant, died at his home in New York City, March 12, after a lingering illness, aged 73.

Justin G. Thompson, M.D. University of Michigan, Ann Arbor, 1861, a surgeon in the Army during the Civil War; formerly president of the Erie County Medical Society, and for many years local surgeon of the Lake Shore and Michigan Southern Railway, died at his home in Angola, N. Y., March 6.

Peter Gourdin de Saussure, M.D. Medical College of the State of South Carolina, Charleston, 1878; a member of the American Medical Association, professor of obstetrics, gynecology and diseases of children in his alma mater, died at Riverside Infirmary, Charleston, S. C., from pneumonia, March 8, aged 46.

John Frank Geis, M.D. Medical College of Indiana, Indianapolis, 1891, professor of chemistry, toxicology and forensic medicine in the Medical College of Indiana; deputy coroner of Marion County, died at his home in Indianapolis, March 7, from pneumonia, after a short illness, aged 35.

Anton F. Blocki, M.D. Rush Medical College, Chicago, 1892, a member of the American Medical Association, and health officer of Sheboygan, Wis., died at his home in that place, from acute disease of the liver, for which operation was unsuccessfully made, March 6, aged 37.

Philip H. Brothers, M.D. Jacksonville Medical College, 1853, a member of the American Medical Association, and once a member of the legislature from Calhoun County, died suddenly in a field near his home in Zula, Ala., from heart disease, March 4, aged 74.

Charles H. Richmond, M.D. University of Buffalo, 1860, president of the village of Livonia, N. Y., for ten years, died from the effects of bichlorid of mercury, given by mistake for the mild chlorid, after an illness of six days, March 2, aged 63.

Robert Saunders Henry, M.D. University of Maryland, Baltimore, 1883, a graduate of the U. S. Naval Academy, Annapolis, Md., died at his home in Charleston, W. Va., March 10, from nephritis, after an illness of a year, aged 52.

John Orlando Scott, M.D. University of Louisville, 1862, of Sherman, Texas, surgeon in the Confederate service during the Civil War, died at St. Vincent's Sanitarium, Sherman, after a surgical operation, March 8, aged 66.

Ida R. Gridley-Case, M.D. College of Physicians and Surgeons, Boston, 1889, a member of the American Medical Association, died from pneumonia, March 9, after a short illness, at her home in Collinsville, Conn., aged 41.

Stanley G. Clarke, M.D. New York University, 1868, for a time a member of the board of health and president of the Central Hospital, Brooklyn, died at his home in that city from diabetes, March 5, aged 61.

Oliver W. Lindsay, M.D. Ohio Medical University, Columbus, 1896, coroner of Franklin County, Ohio, formerly secretary to the superintendent of health of Columbus, died at his home in Columbus, March 8, aged 29.

Verranus Morse, M.D. New York University, 1849, one of the founders of the Young Men's Christian Association, died at his home in Brooklyn, March 9, two days after a fall, in which he fractured his hip, aged 85.

Daniel Baert, M.D., for 43 years a practitioner of Zeeland, Mich., for 11 years president of the village, died at his home in that place, March 7, from paralysis, after an illness of several weeks, aged 64.

Charles T. Whybrew, M.D. College of Physicians and Surgeons, New York, 1870, died at his home in New York City, March 8, from Bright's disease, after an illness of several weeks, aged 62.

John S. Witcher, Jr., M.D. Kentucky School of Medicine, Louisville, 1891, of Salt Lake City, Utah, died at Holy Cross Hospital in that city, March 4, from gastric fever, aged 36.

James Billingslea, M.D. University of Maryland, 1878, of Baltimore, died at Harrietstown, N. Y., March 2, aged 46.

August F. Reinhold, M.D. University of Berlin, Germany, 1876, of New York City, died in San Francisco, March 3.

Richard Huggins, M.D. Louisville National Medical College, 1894, died at his home in New Albany, Ind., March 6, from double pneumonia, after an illness of one week, aged 46.

Henry Albert Rundlett, M.D. Harvard University Medical School, Boston, 1887, died at his home in New York City, March 8, from pneumonia, after a brief illness, aged 47.

George A. Traylor, M.D. University of Tennessee, Nashville, 1882, of Bryantsville, Ky., died suddenly from apoplexy while making a professional call in Lancaster, Ky., aged 71.

David H. Poyneer, M.D. Fort Wayne (Ind.) College of Medicine, 1880, died at his home in Pomery, Wash., February 20, from heart disease, after an illness of about a year.

Lorenzo D. McLean, M.D. New York University, 1866, died at his home in East Glastonbury, Conn., March 3, from pneumonia, after an illness of four days, aged 69.

Emory Potter, M.D. Hygeio-Therapeutic College of New York, 1860, died at his home in Saratoga Springs, N. Y., from organic heart disease, February 27, aged 72.

Samuel G. Dilburn, M.D. Medical College of Alabama, Mobile, 1890, of Braggs, Ala., was run over by a train at Wallace, and instantly killed, March 7.

George S. Storm, M.D. Homeopathic Hospital College, Cleveland, 1877, died at his home in Willoughby, Ohio, March 8, after an illness of one week, aged 48.

J. Milton Bowers, M.D. Bennett College of Eclectic Medicine and Surgery, Chicago, 1871, of San Francisco, died at San Jose, Cal., March 7, from paralysis.

Edward Down, M.D. Penn Medical University, Philadelphia, 1865, died at his residence in Kensington, Philadelphia, from Bright's disease, March 11, aged 65.

Israel P. Wilson, M.D. Keokuk Medical College, a dentist of Burlington, Iowa, died suddenly at his home in that city, from heart disease, March 9, aged 67.

Giles W. Van Vleck, M.D. Homeopathic Medical College, Philadelphia, 1852, died at his home in Jackson, Mich., March 4, after an illness of three weeks.

Aaron B. Robbins, M.D. University of Denver, 1885, died at his home in Denver, March 10, from paralysis, after a long period of invalidism, aged 79.

Moses D. Knight, M.D. University of Pennsylvania, Philadelphia, 1861, died at his home in Clinton, N. J., March 6, from heart disease, aged 70.

Pliny P. Gordon, M.D. University of Buffalo, 1865, of Hobart, Ind., died, March 9, at Ridgeland, Miss., where he had gone for his health, aged 68.

James B. Townsend, M.D. University of Nashville, 1869, died at his home in Montgomery, Ala., February 29, after an illness of two years, aged 68.

S. Alex Smith, M.D. Atlanta (Ga.) Medical College, 1891, died at his home in Thomasville, Ga., March 8, after a lingering illness, aged 37.

Romulus C. Biggs, M.D. Bellevue Hospital Medical College, New York, 1868, died at Portsmouth, Ohio, March 3, from typhoid fever.

Fred Mannhardt, M.D. Universities of Tübingen and Heidelberg, Germany, 1843, died at his home in Galion, Ohio, March 4, aged 87.

James D. Beck, M.D. Tulane University, New Orleans, 1870, died at his home in Mason, Texas, January 25, from Bright's disease.

James M. Saunders, M.D. Hahnemann Medical College, Chicago, 1871, died at his home in Dodge Center, Minn., January 23.

James D. Smallhorn, M.D. Trinity College, Dublin, Ireland, died from heart disease at his home in Buffalo, February 24, aged 63.

Frederick B. Jackman, M.D. University of Maryland, Baltimore, 1880, died recently at his home in Clinton, Conn.

W. C. Riley, M.D. University of Missouri, St. Louis, 1852, died at his home in Houstonia, Mo., March 7, aged 88.

Louis Turner, M.D. American Medical College, St. Louis, Mo., 1874, died at his home in St. Louis, March 5, aged 72.

Lawrence Hesselroth, M.D., surgeon in the U. S. Navy during the Civil War, died recently at his home in Chicago.

David D. Toal, M.D. New York University, 1867, died at his home in New York City, February 26, aged 66.

Augustus W. Munson, M.D. Cleveland Medical College, 1854, a retired physician of Kenton, Ohio, died recently.

Theodore F. Holmes, M.D. Indiana, 1897, died at his home in Pickard, Ind., March 6, from pneumonia, aged 60.

Franklin S. Douglass, M.D. Medical College of Georgia, Augusta, 1883, of Scranton, Pa., died recently.

George F. Bradbury, M.D. Tulane University, New Orleans, La., 1878, died suddenly at Modesto, Cal.

George W. Neville, M.D., died at his home in Bethel, Kan., February 21, from paralysis, aged 81.

M. C. Wilkinson, M.D., died at his home in Quitman, Ga., February 28.

Deaths Abroad.

A. A. Liebeault, M.D., the founder of the Nancy School of hypnotism died there February 18, aged 81. His attention was attracted to hypnotism by witnessing a subject bleed at the nose when ordered to do so during his sleep. As a pioneer he opened a clinic at Nancy for gratuitous treatment of ailments by suggestion. He was regarded as a charlatan and impostor until in 1881 Bernheim and others became convinced and joined his standard. Institutes for psychotherapy now exist in many places. One recently founded at Amsterdam is named for him, and his pupils gathered in 1902 to place a tablet on the house at Favières where he was born seventy-nine years before.

Jose Calvo y Martin, M.D., formerly professor of anatomy at Madrid and senator of Spain, died at Madrid, February 8, aged 90. In spite of his advanced age he still took an active interest in affairs, and only the week before his death was prominent in endorsing the child labor bill presented to the Spanish parliament by Dr. Tolosa Latour.

Magnus G. Blix, M.D., professor of physiology at Lund, Sweden, died there, February 14, aged 54. He was noted as an original investigator in the physiology of the muscles and special senses, and inventor of a number of instruments for use in physiologic research.

H. Emminghaus, M.D., professor of psychiatry at Freiburg until six months ago, died there, February 16, aged 68. He had served in a similar capacity at Würzburg and later at the Russian university at Dorpat. He has written numerous works on his specialty.

Book Notices.

A Text-Book of Operative Surgery. Covering the Surgical Anatomy and Operative Technic Involved in the Operations of General Surgery. Written for Students and Practitioners. By Warren Stone Bickham, Phar.M., M.D., Assistant Instructor in Operative Surgery, College of Physicians and Surgeons, New York. With 559 Illustrations, Entirely Original. Cloth. Pp. 984. Price, $6.00 net. Philadelphia, New York, London: W. B. Saunders & Co. 1903.

The author has devoted an unusual amount of space to the descriptive and surgical anatomy of the structures involved. This is perhaps of more use to the student in the dissecting room than to the surgeon in the operating room. About 140 pages are devoted to the arteries and veins, part of which is a rather needless elaboration. Under directions for differentiating arteries from veins it is stated in favor of arteries, "their thinner walls," under veins, "by having thinner coats." Should a vein be wounded when removing lymphatic glands from the neck, the author says: "If so situated (i. e., the wound in the vein) that closure can not be immediately made, the part should be flooded with water so that water stands over the open vein, to prevent the drawing in of air until the vein can be secured." It would be hard to conceive of anything that would make the discovery and control of a bleeding vein more difficult than to have the field flooded with water and blood. Under operations on the gasserian ganglion and its branches we find no mention of Cushing's method of approach, nor of Abbe's operation. Enucleation operations for tumors of the thyroid are also wanting. Under trephining the author states: "It is probably best to open the dura in all cases of trephining." This is not the rule of experienced surgeons. The dura should not be opened unless some indication exists for so doing, for in many cases of fractures extradural hemorrhages, osteomyelitis, etc., the dura is not injured, and to open it would be entirely unnecessary and but increase the risks of infection. Most of the illustrations are new and well executed, but Figure 158 shows a front view of the lower end of the femur on a side view of the leg, and Figure 207 shows the excision of a tendon sheath from the extensor tendon of a finger where no tendon sheath exists. The technic of the various operations is well described, but where more than one method of operating is given there are no rules to aid an inexperienced operator in making a selection. Advice in this direction would have added materially to the value of the work. So far as the mechanical part of operating goes the work covers the ground very well.

The American Year-Book of Medicine and Surgery for 1904. A Yearly Digest of Scientific Progress and Authoritative Opinion in All Branches of Medicine and Surgery, Drawn from Journals, Monographs and Text-Books of the Leading American and Foreign Authors and Investigators. Arranged, with Critical Editorial Comments, by Eminent American Specialists, Under the Editorial Charge of George M. Gould, A.M., M.D. In Two Volumes. Volume I, Including General Medicine. Pp. 673. Fully Illustrated; Volume II, General Surgery. Pp. 680. Fully Illustrated. Cloth. Price, per volume, $3.00 net. Philadelphia, New York, London: W. B. Saunders & Co. 1904.

These two volumes keep up the reputation of this annual that it has well deserved in the past. In a work like this it is necessary to cull from an immense amount of medical literature, and the ability to do this and to properly collate the important facts that are most worthy of note is not common, but Dr. Gould evidently has been able to command such ability. The names of the editors, including those of Drs. Chalmers DaCosta, Barton Cooke Hirst, W. A. Newman Dorland, V. P. Gibney, Walter L. Pyle and others in surgery; of Drs. Abbott, Church, Edsall, Crozer Griffith, A. O. J. Kelly, Riesman, Stengel and others in medicine, are sufficient evidence of the value and thoroughness of the work. It is one of the best periodical medical summaries that is available to medical readers in any English-speaking country. The two volumes make a total of over 1,200 pages of solid valuable matter.

A Reference Handbook of the Medical Sciences, Embracing the Entire Range of Scientific and Practical Medicine and Allied Science. By Various Writers. A New Edition. Completely Revised and Rewritten. Edited by Albert H. Buck, M.D., New York City. Volume VII. Illustrated by Chromo-lithographs and 688 Half-tone and Wood Engravings. Cloth. Pp. 951. Price, $7.00 per volume. New York: Wm. Wood & Co. 1904.

This volume, the last but one of the complete Reference Handbook, covers subjects from saccharin to ulcer. Beside an enormous number of more or less short articles, there are included in this volume many exhaustive ones, so exhaustive that they may be called complete monographs. Among these may be mentioned those on scarlet fever, occupying 22 pages; the sexual organs, 47 pages; the spinal cord and its diseases, 115 pages; the stomach and its diseases, 68 pages; syphilis, 32 pages; teratology, 50 pages; tuberculosis, 16 pages, and typhoid fever, 12 pages. These articles, as well as the shorter ones, are as a rule written by those who are specialists in the subjects treated, and consequently are scientific and reliable. Since all subjects are brought well up to date, most of the articles have had to be rewritten in part; not a few of the subjects are entirely new. The work is proving to be one of the most complete and satisfactory cyclopedias of medicine that is to be had in any language.

Bacteria, Yeasts and Molds in the Home. By H. W. Conn, Ph.D., Professor of Biology in Wesleyan University, Middletown, Conn. Cloth. Pp. 293. Price, $1.00. Boston and London: Ginn & Co. 1903.

Professor Conn is well known as well fitted to furnish a popular work on such a subject. He has brought together an amount of information which will be of value to the general public. The work is destined, he says, for all who are interested in household affairs, or who have the practical charge of homes and are interested in keeping them in good healthful conditions; we do not know any other work that could be better recommended for the ground covered. A little knowledge is sometimes a dangerous thing, but the facts given here are not so little as to prove perilous, and may be of decided value in correcting bad practices and misapprehension on the part of those who have charge of the health essentials of our daily life. It is popularly written and will be of interest to any general reader. The illustrations are numerous and good.

The Practical Care of the Baby. By Theron Wendell Kilmer, M.D., Associate Professor of Diseases of Children in the New York School for Clinical Medicine. Cloth. 12mo. Pages xiv-158, with 68 Illustrations. Price, $1.00 net, delivered. Philadelphia: F. A. Davis Company.

The author's object was to give, in rather more detail than is usual in works of this kind, the principal points that the mother or nurse should know in regard to the care of the child in its earliest months of life. With this in mind, Kilmer has included many illustrations as to the proper methods of holding the infant, etc., and these are a valuable addition. A diet schedule and a brief account of the disorders to which they are liable is added in the latter part of the book. The advice, of course, is not for home treatment, for the physician is almost universally recommended to be called in, but the recognition of the conditions is often very important. The book will be a very useful one for the inexperienced mother or nurse.

Subjective Sensations of Sight and Sound. Abiotrophy and Other Lectures. By Sir William R. Gowers, M.D., F.R.C.P., F.R.S., Hon. Fellow R. Coll. Phys., Ireland. Cloth. Pp. 250. Price, $2.00. Philadelphia: P. Blakiston's Son & Co. 1904.

Among the English neurologists Sir William R. Gowers stands practically at the head, not only for his ability and contributions, but for his long and wide experience. In this little volume are included a number of lectures, which have appeared in print at various times in the past. They have been revised for the present publication. Their value was recognized as they appeared in the medical journals from time to time, and their collection in a book form is a convenience to the general reader, few of whom have had the opportunity to read all the originals, appearing as they did, some in the British medical weeklies, and some in the German journals and elsewhere.

The Complete Medical Pocket-Formulary and Physician's Vade-Mecum: Containing Upwards of 2,500 Prescriptions, Collected from the Practice of Physicians and Surgeons of Experience, American and Foreign. Arranged for Ready Reference Under an Alphabetical List of Diseases. Also a Special list of New Drugs, with Their Dosage, Solubilities and Therapeutic Applications; Together with a Table of Formulæ for Suppositories; a Table of Formulæ for Hypodermic Medication; a List of Drugs for Inhalation; a Table of Poisons, with Their Antidotes; a Posological Table; a List of Incompatibles; a Table of Metric Equivalents; a Brief Account of External Antipyretics; Disinfectants; Medical Thermometry; the Urinary Tests; and Much Other Useful Information. Collated for the Use of Practitioners. By J. C. Wilson, A.M., M.D., Physician to the German Hospital, Philadelphia. Third Revised Edition. Leather. Pp. 268. Price, $1.75; Thumb Index, $2.00. Philadelphia: J. B. Lippincott Co.

The title of this little work gives a fair idea of its contents. It will undoubtedly prove useful to many physicians. though like every other formulary only as an adjunct to original prescribing.

Diseases of the Nervous System. A Text-book for Students and Practitioners of Medicine. By H. Oppenheim, Professor of the University of Berlin. Translated and Edited by Edward E. Mayer, A.M., M.D., Pittsburg, Pa. Second American Edition, Revised and Enlarged. With 343 Illustrations. Cloth. Pp. 953. Price, $5.00 net. Philadelphia and London: J. B. Lippincott Co. 1904.

This second American edition of Oppenheim's work will be received with the favor that attended its predecessor. The new matter introduced by Professor Oppenheim in his third German edition has been translated and inserted, and the translator and editor has also added here and there some further data that have been obtained since the revision of the last German edition. Attention is called to the fact that Professor Oppenheim has incorporated in this work observations never published elsewhere, which gives the work an added value as an original source of information.

The Self-Cure of Consumption Without Medicine, with a Chapter on the Prevention of Consumption and Other Diseases. By Charles H. Stanley Davis, M.D., Ph.D., Member of the Connecticut State Medical Society. Cloth. Pp. 176. Price, 75 cents. New York: E. B. Treat & Co. 1904.

This is one of the many semi-popular works that are appearing, and will probably continue to appear, in regard to the disease which is exciting so much popular attention at the present time. The author has brought together a valuable amount of instruction which the average consumptives or those who have charge of them, can receive with profit. In one place we notice what seems to us a slight tendency to fadism as regards diet, but such blemishes are few, and the work as a whole can be safely recommended.

Manual of Practical Anatomy. By D. J. Cunningham, M.D. Edin. et Dubl., D.Sc., LLD., D.C.L. Oxon., F.R.S., Professor of Anatomy in the University of Edinburg. Volume I: Upper Limb. Lower Limb. Abdomen. Volume II: Thorax, Head and Neck. Third Edition. Illustrated. Cloth. Pp. 605 and 607 Respectively. Price. $5.00. Philadelphia: J. B. Lippincott Company. 1903.

This manual of practical anatomy appears in this edition in the form of a series of volumes, the first on the upper and lower extremities and abdomen, and the second on the thorax, head and neck. The illustrations are a valuable addition for the understanding of the descriptions. It is one of the most convenient and best anatomic manuals that we have seen, certainly one of the most up to date, which is of some importance.

Manual of Medicine. By Thomas Kirkpatrick Monro, M.A., M.D., Fellow of and Examiner to the Faculty of Physicians and Surgeons, Glasgow. Cloth. Pp. 901. Price, $5.00 net. Philadelphia and New York: W. B. Saunders & Co.

This book is not elaborate enough for a work on practice—that is to say, one that completely meets the needs of the practitioner; it is one that will be useful to the medical student, or to one who desires to brush up. Within its limitations it is generally admirable.

Miscellany.

The True Physician.—Methods of conduct are of just importance; business methods are of just importance, and while it is impossible, perhaps, to make a gentleman out of a rogue, yet every physician must know the principles of conduct, and know them well. There is needed the spirit of a gentleman, a scholar and a good citizen to make the true physician.—*Medical Fortnightly.*

Streptococcus Serum in Infections.—A. Hirsch has been much impressed with the value of antistreptococcus serum in the treatment of streptococcus infections. He describes, in the *St. Petersburg. med. Wochenschrift*, Vol. 28, No. 44, 1903, a small epidemic of scarlet fever in which the effect of the serum was unmistakable. He warns that the drop in the temperature is not enough to determine whether the initial dose has been adequate. The heart, pulse, respiration and general condition must be taken into account besides. He thinks that there is a field of usefulness for these injections in mixed infection with tuberculosis when streptococci are numerous in the sputa.

One Sort of Saving.—Dr. Cyrus Edson of New York, who had a large income from his practice, left a personal estate of only $4,000. His widow explains that Dr. Edson's charity was as large as his professional ability and his capacity for work. No one, however poor, would be turned away without advice, as Dr. Edson was always ready to give them the benefit of his professional skill. Several years ago a citizen of Baltimore, who had given much to charity, failed in business. One of his friends, in talking over the situation, asked him if he did not feel *now that* misfortune had overtaken him, that he had made a mistake, giving away so much. "Mistake?" he asked, with a show of surprise. "Bless your soul, that is all I have saved out of the wreck." The above is from the *Waterbury (Conn.) Republican.* Charity should be freely exercised, but the failure to secure payment from those who could pay at least a small fee is not charity, but sin—injuring the physician, the patient, the profession and the public.

Intoxication with Laundry Bluing.—A. Kramer of Dorpat relates, in the *St. Petersburg med. Woch.*, that he was summoned to a child in convulsions with mydriasis and pulse and respiration growing constantly fainter and more irregular until the latter ceased completely. The child had eaten two balls of laundry bluing three hours before. Not knowing the composition of the bluing he was at a loss what to do. He could only proceed symptomatically, and succeeded in reviving the patient with artificial respiration, brandy and milk per os and per rectum and wine of antimony. The child gave the first signs of spontaneous movements after three hours of these efforts, after which he rapidly recuperated, and by the next morning was apparently quite well, except for some loss of appetite, explainable by the amount of alcohol taken. Study of the laundry blue showed that it was composed of ultramarine, and that the ingredients of the latter are kaolin, soda, sulphur and carbon or similar substances which generate sulphuretted hydrogen in the presence of an acid or acid salts. The intoxication was, therefore, due to H_2S. It must have been absorbed from the stomach into the blood, but did not cause any toxic action on account of the alkalinity of the blood, until it reached the lungs, where it probably became free again and exerted its specific action. As a proportion of .02 per cent. of H_2S in the air has a toxic effect, the symptoms observed are easily explained, also the long latency before they developed. Cahn has reported a case in which a student intoxicated with sulphuretted hydrogen in the morning did not develop symptoms until late in the afternoon.

Diabetes from Fright.—A. Lorand of Carlsbad has observed 2 cases of fatal diabetes occurring in previously healthy young women consecutive to a severe fright. (*St. Petersburg. med. Wochenschrift*, Vol. 28, No. 22, 1903.) In the first case the young woman while bicycling narrowly escaped being run down by a trolley car. She felt that "her heart stood still," but was able to pedal home. She felt exhausted the next day, and by the fifth, thirst and polyuria attracted attention, and in two or three weeks 7 per cent. sugar was discovered in the urine. By the fifth month symptoms of severe diabetes had become established, somewhat improved by a stay at Carlsbad, but then continuing a progressive course with death in about a year after the fright. The second patient was a robust girl of 16, who was attacked by a man in a dark street on her way home from school. She escaped unharmed, and fled into the house near by. The next day she noticed that her mouth was very dry and that she felt exhausted. This was followed by symptoms of dyspepsia and gradual emaciation for six months before any one thought of examining her urine. Sugar was found in the proportion of 8 per cent., and a course at Carlsbad also improved the symptoms in this case, but terminal coma developed not long afterward. The urine had never been examined in these cases before the fright, and the diabetes may possibly have previously existed. The unwavering good health, however, speaks against this assumption.

The Public Service.

Army Changes.

Memorandum of changes of station and duties of medical officers of the Army for the week ending March 12, 1904:

Woodson, Robert S., asst.-surgeon, so much of paragraph 1, S. O., as granted two months' leave, amended to read one month, with permission to apply for thirty days' extension.

Torney, George H., deputy surgeon general, left from duty as chief surgeon, Department of California, en route to take command of U. S. Army General Hospital, Presidio of San Francisco.

Maus, Louis M., deputy surgeon general, granted thirty days' sick leave to take effect on the arrival of Captain Elmer A. Dean at Fort Riley, Kan.

Girard, Alfred C., asst.-surgeon general, announced as chief surgeon, Department of California, San Francisco.

Kulp, John S., asst. surgeon, relieved from duty as attending surgeon and examiner of recruits, Philadelphia, and ordered to Fort McDowell, Cal.

Dean, Elmer A., asst.-surgeon, leave extended fourteen days.

Mabry, William C., contract surgeon, granted an eight days' extension of his leave of absence from the Department of the Lakes.

Navy Changes.

Changes in the medical corps of the Navy, week ending March 12, 1904:

Thompson, E., P. A. surgeon, detached from the Marine Detachment, Culebra, W. I., and ordered to the *Des Moines*.

Furlong, F. M., P. A. surgeon, detached from Naval Station, Guantanamo, Cuba, and ordered to the Marine Detachment, Culebra.

Orvis, R. T., P. A. surgeon, detached from the Marine Department, Culebra, and ordered to Naval Hospital, New York.

Angney, G. L., P. A. surgeon, detached from Panama Marine Brigade, and ordered to the Naval Station, Guantanamo.

Richardson, R. R., as[illegible] detached from the *Amphitrite* and ordered to Naval I[illegible] Fla.

Stepp, J., asst.-surgeo[illegible] the Navy Yard, Boston, Mass., and ordered to th[illegible]orarily, and then return to duty at the Boston Navy Yard.

Spratling, L. W., surgeon, detached from the Bureau of Medicine and Surgery and ordered to the Marine Battalion, on the Isthmus of Panama.

Marine-Hospital Service.

Official list of the changes of station and duties of commissioned and non-commissioned officers of the Public Health and Marine-Hospital Service, for the seven days ended March 3, 1904:

Nydegger, J. A., P. A. surgeon, granted leave of absence for one month from March 6, 1904, on account of sickness.

McMullen, John, P. A. surgeon, bureau order of Dec. 3, 1903, relieving P. A. Surgeon McMullen from duty at Hongkong, China, and directing him to proceed to San Francisco, amended so that he shall report to the chief quarantine officer at Honolulu for temporary duty.

Fricks, L. D., P. A. surgeon, relieved from duty at the Immigration Depot, New York City, and assigned to duty in the office of the United States Consul at LaGuayra, Venezuela.

Goldberger, Jos., and Korn, W. A., asst.-surgeons, to report to chairman of board of examiners at Washington, D. C., March 9, 1904, for examination to determine their fitness for promotion to the grade of P. A. surgeon.

Holt, J. M., asst.-surgeon, to proceed to San Francisco.

Trotter, F. E., asst.-surgeon, relieved from duty at San Francisco and directed to report to P. A. Surgeon Rupert Blue, Plague Laboratory, San Francisco, for duty.

Lloyd, B. J., asst.-surgeon, relieved from duty at San Francisco and assigned to duty in the office of the United States Consul at Callao, Peru, Feb. 26, 1904, to proceed to Concord, Cal., for special temporary duty March 1, 1904.

Boggess, J. S., asst.-surgeon, granted leave of absence for three days from February 18.

Warren, B. S., asst.-surgeon, granted one day's extension of leave of absence Feb. 22, 1904.

Manning, H. M., asst.-surgeon, relieved from duty at Honolulu, T. H., and directed to proceed to Manila, P. I., and report to chief quarantine officer for assignment to duty.

Ashford, F. A., asst.-surgeon, granted leave of absence for ten days from March 28.

Richardson, S. W., pharmacist, to proceed to St. Louis and assume charge of the Marine-Hospital exhibit at the Louisiana Purchase Exposition.

PROMOTION.

Perry, J. C., P. A. surgeon, commissioned as surgeon.

BOARDS CONVENED.

Board convened at Washington, D. C., Feb. 29, 1904, for the physical examination of candidates for position of second assistant engineer, Revenue-Cutter Service. Detail for the board: Asst.-Surgeon-General L. L. Williams, chairman; Asst.-surgeon A. J. McLaughlin, recorder.

Board convened at Washington, D. C., March 4, 1904, for the physical examination of Chief Engineer G. B. Maher, Revenue-Cutter Service. Detail for the board: Asst-Surgeon-General L. L. Williams, chairman; Asst.-Surgeon-General W. J. Pettus, recorder.

CASUALTY.

Russell, Howard C., asst.-surgeon, died at Stapleton, N. Y., March 2, 1904.

Health Reports.

The following cases of smallpox, yellow fever, cholera and plague have been reported to the Surgeon General, Public Health and Marine-Hospital Service, during the period from March 6 to March 12, 1904:

SMALLPOX—UNITED STATES.

California: Escondido, Feb. 23-March 3, 1 case.

District of Columbia: Washington, Feb. 27-March 5, 6 cases.

Florida: Jacksonville, Feb. 27-March 5, 7 cases.

Illinois: Feb. 27-March 5, Chicago, 4 cases; Danville, 1 case; Springfield, Feb. 25-March 3, 3 cases.

Louisiana: New Orleans, Feb. 25-March 3, 7 cases imported.

Michigan: Detroit, Feb. 27-March 5, 1 case; 88 localities, Feb. 20-27, present.

Missouri: St. Louis, Feb. 27-March 5, 13 cases.

New Hampshir[illegible] 27-March 5, 7 cases, 1 death.

New Jersey: F[illegible] den, 2 cases; Trenton, 1 case.

New York: Fe[illegible] alo, 1 case; New York City, 1 case; Niagara [illegible] 5, 2 cases.

North Carolina: Wilmington, March 1-8, 3 cases.

Ohio: Cleveland, Feb. 26-March 4, 1 case; Dayton, Feb. 27-March 5, 19 cases, 2 deaths.

Pennsylvania: Altoona, Feb. 24-March 5, 1 case imported; Carbondale, Feb. 29-March 7, 1 case; Feb. 27-March 5, Johnstown, [illegible] cases, 6 deaths; Pittsburg, 4 cases.

[illegible] Feb. 20-27, 2 cases.

[illegible] 5, Memphis, 36 cases, 2 deaths; Nash-

[illegible]

Wisconsin: Milwaukee, Feb. 27-March 5, 4 cases.

SMALLPOX—INSULAR.

Porto Rico: San Juan, March 8, 6 cases.

SMALLPOX—FOREIGN.

Austria: Prague, Feb. 13 20, 3 cases.

Belgium: Antwerp, Feb. 13-20, 6 cases, 1 death.

Brazil: Pernambuco, Jan. 16-31, 28 deaths; Rio de Janeiro, Jan. 31-Feb. 7, 37 cases, 27 deaths.

Canada: Quebec, Feb. 27-March 5, 3 cases.

China: Chefoo, Feb. 6, present; Shanghai, Jan. 16-30, 3 cases, 37 deaths.

France: Feb. 6-13, Lyons, 1 death; Paris, 36 cases, 1 death.

Great Britain: Feb. 12-26, Edinburgh, 12 cases, 1 death; Glasgow, 51 cases, 3 deaths; Leeds, Feb. 20-27, 1 case; Feb. 13 20, London, 9 cases; Manchester, 1 case, 1 death; Nottingham, Feb. 6-20, 35 cases, 1 death.

India: Bombay, Feb. 2-9, 8 deaths; Calcutta, Jan. 30-Feb. 6, 2 deaths; Karachi, Jan. 31-Feb. 7, 4 cases.

Java: Batavia, Jan. 23-30 16 cases, 2 deaths.

Malta: Feb. 6-13, 1 death.

Mexico: City of Mexico, Feb. 21-28, 5 cases, 4 deaths.

Russia: Feb. 6-13, Moscow, 5 cases, 2 deaths; St. Petersburg, 3 cases, 1 death.

Spain: Santander, Feb. 21-28, 4 cases, 1 death.

Turkey: Constantinople, Feb. 14-21, 4 deaths; Smyrna, Jan. 31-Feb. 7, 1 case.

Venezuela: Maracaibo, Feb. 7-14, 1 case, 1 death.

YELLOW FEVER.

Brazil: Rio de Janeiro, Jan. 31-Feb. 7, 4 cases, 3 deaths.

Mexico: Merida, Feb. 21-27, 2 cases: Vera Cruz, Feb. 20-27, 1 case.

CHOLERA—INSULAR.

Philippine Islands: Jan. 23-30, Manila, 1 case, 1 death; Provinces, 120 cases, 90 deaths.

CHOLERA—FOREIGN.

India: Calcutta, Jan. 31-Feb. 6, 14 deaths.

PLAGUE—INSULAR.

Hawaii: Hilo, March 4, 1 death.

Philippine Islands: Manila, Jan. 16-Feb. 30, 5 cases, 3 deaths.

PLAGUE—FOREIGN.

Africa: Port Elizabeth, Jan. 8-16, 2 cases.

Brazil: Pindamonhangaba, Jan. 15, several cases; Rio de Janeiro, Jan. 31-Feb. 7, 7 cases, 4 deaths.

India: Bombay, Jan. 2-9, 419 deaths; Calcutta, Jan. 30-Feb. 6, 50 deaths; Karachi, Jan. 31-Feb. 7, 49 cases, 37 deaths.

Medical Organization.

Arkansas.

EIGHTH COUNCILOR DISTRICT MEDICAL SOCIETY.—This society was organized at Little Rock, February 24, and elected the following officers: President, Dr. George S. Brown, Conway; vice-president, Dr. Strodder U. King, Little Rock, and secretary, Dr. William C. Dunaway, Little Rock. The meeting was followed by a banquet, over which the vice-president presided as toastmaster.

Indiana.

FLOYD COUNTY MEDICAL SOCIETY.—At the annual meeting held in New Albany, March 3, the standard constitution and by-laws was adopted and the following officers were elected: President, Dr. Harvey S. Wolfe; vice-president, Dr. William P. Tebault; secretary and treasurer, Dr. Austin Funk; censors, Drs. Charles W. McIntire, George H. Cannon and Elihu P. Easley, and delegate to state society, Dr. Elihu P. Easley, all of New Albany.

Montana.

BEAVERHEAD COUNTY MEDICAL SOCIETY.—The physicians of the county met at Dillon, February 29, and organized a medical society, adopting the standard constitution and by-laws, and electing the following officers: Dr. Harry A. Bond, Dillon, president; Dr. Louis C. Ford, Lima, vice-president; Dr. F. M. Poindexter, Dillon, secretary; Dr. Robert H. Ryburn, Bannack, treasurer, and Dr. Maurice A. Walker, Dillon, delegate to state medical association.

Pennsylvania.

MEDICAL SOCIETY OF THE CITY OF READING AND THE COUNTY OF BERKS.—Under the foregoing title the Medical Faculty of Berks County, which was disbanded in 1870, reorganized February 23.

Tennessee.

CAMPBELL COUNTY MEDICAL SOCIETY.—Pursuant to a call by Dr. Deering J. Roberts, Nashville, secretary of the Tennessee State Medical Association, physicians of the county met in La Follette, February 6, and organized a medical society, with a membership of 16, and the following officers: President, Dr. Irwin J. Shepherd, La Follette; vice-president, Dr. Joseph L. Rose, Jellico; secretary, Dr. Joseph U. Roach, La Follette; treasurer, Dr. Frank H. McClintock, Newcomb; committee on public health and legislation, Drs. Winfield M. Caldwell, Wellspring, A. M. Riggs, La Follette, and J. L. Hefferman, Jellico, and censors, Drs. W. B. Rose, E. E. Shivers, and G. R. Wright, all of La Follette. This society has received its charter, and is receiving the hearty co-operation of the profession.

Society Proceedings.

COMING MEETINGS.

Medical Society of the Missouri Valley, Lincoln, Neb., March 24.

American Association of Pathologists and Bacteriologists, New York City, April 1-2.

Medical Association of the District of Columbia, Washington, April 5.

Tennessee State Medical Association, Chattanooga, April 12.

South Carolina Medical Association, Darlington, April 13.

CHICAGO ORTHOPEDIC SOCIETY.

Regular Meeting, held Feb. 29, 1904.

The President, Dr. A. B. Hosmer, in the Chair.

Compound Fracture of the Patella and Condyles.

DR. A. E. HALSTEAD reported a case of a man, who, while riding on the platform of a fast train, was struck by an iron girder, which produced a compound comminuted fracture of the patella. The external condyle was completely fractured, and the joint attached simply by the portion of the external lateral ligament. The patient was brought to St. Luke's Hospital, anesthetized, the parts cleansed, and the patella sutured with catgut; the joint thoroughly washed out with 1 per cent. solution of carbolic acid; a cigarette drain placed in the joint for twenty-four hours, and another one inserted at the outer aspect of the joint. The result was excellent, patient having a considerable degree of motion.

He had had other cases of compound fracture of the patella, and had always secured primary union. He had not seen infection in any of them. He attributed the good results largely to thorough antisepsis, using a 1 per cent. solution of carbolic acid freely, and *then draining the joint for twenty-four hours.*

DR. W. P. VERITY reported excision of the knee-joint three months after an injury to a boy of 14, who fell against a fly-wheel. The exact mode of injury was unknown. The result of operation was excellent.

Tuberculous Knee-Joint, with Pulmonary Complications, Excision.

DR. GAY reported this case for Dr. W. H. Allport, and showed specimens. The patient was a man, 28 years of age, who gave a history of trauma dating back two years, followed by more or less swelling of the knee, which gradually increased. About sixteen months from the time of the injury, the patient began to have a slight cough, and consulted Dr. Allport four weeks ago. Physical examination disclosed tuberculosis of the apex of the left lung, dullness, and the characteristic signs of apical tuberculosis. Practically an excision of the knee-joint was done. In the joint proper were the more pronounced tubercular lesions. Sections removed at several points and carefully examined disclosed typical tubercular formations. The bone itself was not particularly involved, except inside the capsule. Since the operation, the man had had a slight temperature, but was doing fairly well. The tubercular process involved the bursa over the great trochanter.

DISCUSSION.

DR. HOSMER said that this case raised the question of the relative frequency of the primary focus of tuberculosis, whether it occurred in the soft tissues or in bone. He asked Dr. Owens, who had seen the case, whether he thought it was capsular or osteal tuberculosis.

DR. JOHN E. OWENS replied that he was not in a position to say whether the tubercular process had involved the bone or not, but he thought it implicated other structures. He believed that the head of the tibia was involved. When the joint was first opened, a collection of material was removed which resembled in appearance a tapeworm. A certain well-known surgeon, he said, had stated that in his opinion rice bodies were tuberculous in nature. Dr. Owens had seen a few cases of rice bodies in joints that he thought were not due to tuberculosis. When a man had pulmonary tuberculosis, which was demonstrable, he usually succumbed to it sooner or later, and it was a question whether an operation should be done in such a case. He believed the consensus of opinion was against operations in such cases. At the same time, excision was performed in Dr. Allport's case, as the patient suffered excruciating pain.

DR. EDWIN W. RYERSON had seen several cases of rice bodies in the knee which were not tuberculous. He saw one knee-joint opened which contained twenty flattened bodies, which looked like pumpkin seeds. He stated that Nichols of Boston maintained that there were very few cases of primary synovial tuberculosis.

DR. A. E. HALSTEAD said that Koenig believes that fully 50 per cent. of the cases in adults are primary synovial tuberculosis. Dr. Halstead himself had seen cases in which primary synovial tuberculosis was demonstrated.

Dr. Alexander C. Wiener said that primary synovial and osteal tuberculosis were not really primary conditions; that the tubercle bacilli were carried by the blood current into the knee-joint from some other part of the body, probably the lung or the bronchial glands. The French Congress of Surgery agreed with Koenig that fully 50 per cent. of the cases of tuberculosis in adults were primarily synovial. There was no doubt but that there were cases of primary tuberculosis of the bursa above the trochanter. This might be compared with the primary seat of the disease in the synovial membrane of the joint.

Dr. Hosmer said that while he did not wish to detract from the reputation or standing of Koenig, yet as regards tuberculosis of bones, he thought one could question the correctness of Koenig's diagnoses in many cases that were not operated on. So far as he knew, the statistics of Koenig were not corroborated by skiagraphy. His own impression was that the occurrence of anything like 50 per cent. of capsular tuberculosis in children was erroneous.

Dr. Halstead said he referred to adults, not to children.

Dr. Hosmer said he had come to the conclusion that cases of tuberculosis of bones, particularly of the knee-joint, in adults, never recovered without operation. As to operating when there was already lung involvement, if the involvement was only slight, he thought it would give the patient a better chance to remove whatever focus of the disease one could. He did not think anyone, in speaking of the primary focus, referred to the atrium of invasion of the system by tuberculosis..

Dr. Hosmer also showed a case of unusually extensive resection of the knee for infection.

Dr. Norman Kerr had made observations on cases of tuberculosis of the hip joint that were operated on early by Dr. M. L. Harris, and on one or two cases by himself, in which the results were much better than by the expectant plan of treatment. He did not see why the same principle should not apply to the knee as well as to the hip.

Dr. Hosmer reported an interesting case of excision of the knee for ankylosis.

Supracondyloid Femoral Fracture, with Complications.

Dr. John E. Owen reported two cases. One was a man, aged 30, who sustained a simple supracondyloid fracture of the left femur and a compound comminuted supracondyloid fracture of the right femur. The line of fracture on the right side was just above the condyles, which were detached, the one from the other, and variously comminuted. Both legs were cold, the circulation in the right below the knee having ceased. Shock was extreme. For this he was subjected to the usual treatment, and, by the following morning, reaction having supervened, the right leg was amputated through the lower third of the thigh. The left leg was placed on a double inclined plane, abundantly padded. Dry gangrene became manifest within nine days, but it did not extend beyond the second, third, fourth and fifth toes. The leg, however, enveloped in cotton, remained warm. Eventually, moist gangrene involved a patch of skin the size of a silver dollar on the back of the foot, close to the instep. Another portion appeared on the external aspect of the leg a short distance below the knee, and still another about the middle of the leg on its external aspect. The skin, from the middle of the leg to the ankle on the external aspect, became purple, and the foot and ankle swollen. The knee was wider than normal, and the lower end of the upper portion of the femur was somewhat prominent externally.

The line of fracture was oblique and extended from above downward and outward, the upper extremity of the broken surface of the lower piece being very sharp. The popliteal artery rested immediately beneath the upper end of the lower fragment at its center, the soft tissues intervening between the vessel and the bone hardly exceeding one-eighth of an inch in the hardened specimen. A thrombus closed the artery at the point of section and extended upward doubtless to the first collateral branch. Below the line of the knee-joint a thrombus occluded the vein. The distance from a line touching the articulating surfaces of the condyles to the upper and inner extremity of the fractured surface of the lower fragment was four inches. The lower terminus of this broken surface was one inch and a quarter nearer the line just named.

This case illustrates the great danger of supracondyloid fractures of the femur. In the case of the right leg the circulation was at once arrested by the violence of the injury. In spite of the fact that the left leg was treated on a double inclined plane, the circulation became more and more enfeebled; gangrene supervened, as noted above; union at the end of twenty-five days having absolutely failed, both pulse and temperature being high, amputation of the lower third of the femur was performed Jan. 6, 1904. January 17, the progress of the case was satisfactory.

In the light of this case must the double inclined plane, on which thousands of supracondyloid fractures of the femur have been successfully treated, be discarded as the chief element in the treatment? Must the drill and the wire be employed even at the expense of opening into the knee joint in certain cases? Would section of the tendo Achilles in addition to flexion have saved this limb?

Each case presents for solution a problem essentially its own.

The second case was a man, aged 67, who was at work when an engine struck a handcar, and this in turn struck the patient, knocking him from the track. He sustained the following injuries: A linear fracture, about two inches in length, of the left frontal bone, and over this an irregular laceration of the scalp extending from the eyebrow backward four and one-half inches, the eyelids being "black and blue" and the eyeball suffused; a fracture of the left knee—a chipping off of a portion of the external tuberosity of the tibia, the fragment being freely movable and crepitus being easily elicited; a supracondyloid fracture of the right femur with marked displacement of the lower fragment forward, carrying the patella conspicuously in the same direction. The position of the lower piece, locked in this unusual position, is well illustrated in the figure. There was also a comminuted generally oblique fracture of the right tibia extending from above downward and inward, and entering the knee-joint at its upper extremity. The head of the fibula was also broken and there were two lacerated wounds, each about an inch in length, over the left patella, reaching the surface of this bone, but not entering the joint. The left leg is smaller than the right in consequence of a congenital pes planus. The anterior portion of the leg over the seat of the fractured tibia was very concave as a result of this fracture. There were no head symptoms. The left leg was encased in plaster of Paris in the extended position. The right leg, flexed to an angle of forty-five degrees, was encased in plaster of Paris from the ball of the toes to the groin, strong traction having been made by means of the hands placed behind the seat of the fracture in the tibia, during the application of the plaster and while the plaster was setting. This was done in order to relieve the deformity in the upper portion of the leg—the concavity above referred to. The leg was then suspended. All dressings were removed on the fifty-first day. The fluoroscope showed a very satisfactory apposition in the femur and tibia on the right side. The result on the left side was also satisfactory.

MEDICAL SOCIETY OF THE COUNTY OF NEW YORK.

Regular Meeting held Feb. 29, 1904.

The President, Dr. Wendell C. Phillips, in the Chair.

The Surgery of the Common Duct of the Liver.

Dr. William J. Mayo, Rochester, Minn., said that in the majority of cases the gall bladder was infected through the bile and not by way of the common duct and duodenum, and a gall bladder once infected remained infected, needing only a disturbing element to reproduce its original intensity. In the experience of Dr. Mayo, at least 90 per cent. of all cases of common duct disease brought to operation arise from an infected gall bladder which contains stones, causing mechanical irritation, this being the most favorable condition for frequent bacterial excursions into the common duct; if this is accompanied by calculi which failed to pass the duodenal orifice then the conditions are favorable for the development of cholangitis, pancreatitis, etc. The primary importance of the gall bladder must be recognized in the etiology of these infections and operation projected at a time when the infection and stones are still in their original viscus. The cystic duct and its patency is the most important element in the problem and the question of treatment is to a large extent based on its condition. If it is closed mechanically a diseased gall bladder results, which is better out than in. The keynote to the diagnosis of this condition is that the gall bladder contains no bile. Cholecystectomy is easily performed from below upward, enabling one to carefully ligate the deep parts and to make a bloodless separation from the liver, whereas if the gall bladder be removed from above downward the same vessels will be cut over and over again, obscuring the deep field with blood. If the gall bladder contains bile, with a marked infection of the common duct, provision should be made for bile drainage to the surface, best done by a cholecystostomy and draining through natural passages. One should carefully examine the ducts for stones in all cases, even though there be no special reasons to anticipate their presence beyond the fact that the gall bladder contains stones. For all operations on the ducts Robson's method should be employed. In removing stones from the common duct the finger is the only reliable guide, if the duct is dilated from obstruction sufficiently to permit this.

Dr. Mayo stated that he and his brother had had 26 cases of chronic pancreatitis, and in most of them no stones were found, and either cholecystostomy or cholecystenterostomy was performed. All recovered. Four of these returned with a renewal of previous symptoms and, whereas no stones had been detected at the first operation, stones were found at the second operation in the ampulla in each case. He emphasized again the importance of opening the common duct and exploring with the finger in cases of chronic pancreatitis. He said that the reparative power of the common duct was not exceeded by any mucous-lined channel in the body, and he then cited three cases to illustrate this fact. He said he could not too strongly urge the complete removal of all stones at one sitting if the patient was able to bear the operation. Cholecystenterostomy is indicated by disease of the common duct and the bowel selected should be the duodenum, but in five of their cases this was impossible and the transverse colon was selected with just as satisfactory results. Appended was a table of 107 operations on the common duct, which occurred in 728 operations on the gall bladder and bile passages which had been operated on by Dr. Charles H. Mayo and himself.

DISCUSSION.

Dr. Robert F. Weir said that he was particularly glad to note that the common duct could be laid open, examined, closed, and would regain its serviceableness.

Dr. Joseph A. Blake referred to the method of reaching the common duct by liberating the duodenum for the purpose of attaching it to the cardiac end of the stomach by incising the peritoneum between the duodenum and kidney. In this way the duodenum could be readily turned to the left and the whole of the common duct inspected as well as palpated.

Dr. Willy Meyer emphasized the importance of not responding to the pleadings of patients for immediate operation, with stones in the common duct for a long time when jaundice sets in for the first time. The conditions in the common duct are more active at this time than at any other, and he advised waiting until the acute symptoms subsided before resorting to operative interference, as in cases of acute appendicitis. Stones in the gall bladder may lead to stones in the common duct and, therefore, it is important to remove the stones from the gall bladder as soon as recognized.

Dr. Samuel Lloyd emphasized the importance of preserving the gall bladder if it could be made serviceable and deprecated the advocacy by many surgeons of removal of the gall bladder in every instance of stone.

Dr. Thomas H. Manley believed that the surgery of the gall bladder had been kept back for years because of the fear entertained by many of opening the upper right quadrant of the abdomen, and to-day it was believed by many to be much safer than the surgery of the appendix.

Dr. Mayo said that in acute cases it was better to wait until the fever and initial symptoms had subsided. If the patient was without fever or chills, and was not feeling very ill, it was best to operate at once. In cases of cholangitis with very acute symptoms he said it was not a question of stones, but the infection of the ducts, and many patients died from this without being operated on. He did not believe the gall bladder should be removed unless positively indicated. The so-called ideal operation was to cut into the gall bladder, remove the stones, and sew it up. The removal of the gall bladder was determined by the amount of infection present.

Special Report of the Counsel of the Society.

Mr. Champe S. Andrews related the circumstances which led up to the arrest of Blinn and Conrad, two abortionists who have been working in this city for years. Blinn forfeited bail and fled. Conrad is now in jail, not being able to furnish $10,000 bail.

Consolidation of the Society and the Association Ratified.

Ratification of the action of the state society by each county society was announced to be requisite for the completion of the consolidation, and the action of the state society was ratified without a dissenting voice. The interest in the matter of ratification caused the hall to be packed, and there was not only perfect harmony, but enthusiasm over this further step in the peace that has now been declared after twenty-two years of discord.

LIVERPOOL BIOLOGICAL SOCIETY.

Meeting held Feb. 12, 1904.

Trypanosomes and Sleeping Sickness in Uganda.

Colonel Bruce, R.A.M.C., gave a lecture on this subject, with numerous lantern illustrations, in which, after referring to the discovery in 1888 in India of the rat trypanosome, *T. lewisi*, by Surgeon-Major Lewis, and of that surra, *T. evansi*, a little later, the lecturer proceeded to give a short history of his own discovery of the tsetse-fly parasite, *T. brucei.*

It appears that when he was stationed in Maritzburg in 1894, Governor Hutchinson asked him to go to Zululand to report on a disease among native cattle called "nagana," which threatened to ruin the natives in certain districts. When he reached Ubombo, a magistracy on the top of the Tebombo range of mountains, which here forms the eastern boundary of Swaziland, he found most of the cattle already dead, and the survivors in an emaciated condition. He set up his primitive laboratory on the veranda of a small wattle and daub hut and began the examination of the blood and organs of the animals by bacterialized and other methods. After some days a small, peculiarly shaped body began to make its presence felt on microscopic examination of stained specimens of the blood. In oxen the parasites are very scanty in the blood, so that these bodies were only seen at rare intervals. At first it was thought they were accidental, due to the stain, but after a time their parasitic nature became plain. On examining fresh preparations of blood all doubt was set at rest by the active movement shown by the bodies.

Next blood from an ox containing these active bodies was injected into a dog, and in a few days it was found that the dog's blood was swarming with the same parasites. The question was: "What are these bodies?" At first Colonel Bruce thought they might be filaria, but on turning to Cruikshank's "Bacteriology" the figure of the rat trypanosome showed him he was dealing with a parasite of the same nature. But no one knew that this disease "nagana" was the same as tsetse fly disease. A large mass of evidence on the subject had been collected by the government from magistrates, traders, sportsmen and natives, but nowhere was it stated that "nagana" and tsetse fly disease were one and the same.

In the low country near Ubombo, there was a patch of fly country and Colonel Bruce, being curious to see this interesting disease, sent healthy animals into this district to be bitten by the fly. Much to his surprise the bitten animals showed the same parasite in the blood, and so it slowly became manifest that the disease "nagana" was nothing more or less than that caused by the tsetse fly, and that the tsetse fly, instead of killing by a self-elaborated poison, really acted as a carrier of a parasite from one animal to another. Colonel Bruce remained at Ubombo for two years working at this disease, the results of which were published by the Royal Society in two papers.

When Colonel Bruce arrived in Uganda, March 16, 1903, to investigate the cause of sleeping sickness, he had no idea he would have again to do with another tsetse fly disease. Nothing could have been more fortunate for the success of the investigations. Up to that time the Portuguese commission and the first commission sent out by the Royal Society had described a streptococcus as the cause of the disease, and not the slightest whisper of a trypanosoma being the cause had been heard. One of the members of the former commission, however, in searching for the streptococcus accidentally had chanced on the trypanosoma on five occasions during his nine months' work in Uganda, and the colonial surgeon at Entebbe had also come across it on several occasions in the blood of natives attending the dispensary for slight ailments.

When Colonel Bruce heard of these observations he put all hands to the work of examining sleeping sickness cases for trypanosomes, with the result that in a few weeks he showed that all cases of sleeping sickness had trypanosomes not only in their cerebrospinal fluid, but also in their blood. He then examined the natives of the sleeping sickness area and found that some 28 per cent. of them harbored the parasite in their blood, whereas in non-sleeping sickness areas not a single native was affected.

Within a few days of reaching Entebbe, he had found that a species of tsetse fly (*Glossina palpalis*) swarmed in the vicinity of Entebbe.

By experiment he showed that this fly could convey the infection of sleeping sickness from the sick to the healthy up to 48 hours after having fed. He also showed that the flies caught in a sleeping sickness area were capable of giving the disease to healthy animals. By the aid of the chiefs he then worked out the distribution of this fly throughout the whole of Uganda and made the curious discovery that the distribution of the fly and that of sleeping sickness were identical.

Therapeutics.

[Our readers are invited to send favorite prescriptions or outlines of treatment, such as have been tried and found useful, for publication in these columns. The writer's name must be attached, but it will be published or omitted as he may prefer. It is the aim of this department to aid the general practitioner by giving practical prescriptions and, in brief, methods of treatment for the diseases seen especially in every-day practice. Proper inquiries concerning general formulae and outlines of treatment are answered in these columns without allusion to inquirer.]

Glandular Tuberculosis.

The following outline of treatment is recommended by *Nord. Med.* in the medicinal treatment of glandular tuberculosis:

℞.	Iodi	gr. i		06
	Ext. rhatany	gr. iv		25
	Syr. simplicis	℥iss	45	

M. Sig.: One teaspoonful morning and evening.

And the following is recommended to be placed in the bath:

℞.	Iodi	ʒiiss	10	
	Pot. iodidi	ʒv	20	
	Aquæ	℥viii	240	

M. Sig.: To be put into the bath.

Treatment of Sore Throat.

In *acute inflammations* of the throat in children, N. Filatov, in *Clin. Rev., recommends* putting the patient to bed and relieving constipation with a laxative such as castor oil or Vienna water. For gargling, a 2 per cent. solution of boric acid or sodium salicylate is of service. If diphtheria is suspected the fauces should be painted with a corrosive sublimate solution (1-1,000), or combined as follows:

℞.	Hydrarg. chlorid. corros.	gr. i		06
	Acidi tartarici	gr. viii		50
	Aq. destil.	℥iss	45	

M. Sig.: Paint the fauces twice daily.

In diphtheritic sore throat the mouth should be kept clean by rinsing or gargling or steam pulverizations. For the purpose of better diluting the mucus and saliva, alkalies are indicated:

℞.	Aq. calcis	℥i	30	
	Aq. destil.	℥ii	60	

M. Sig.: As a steam pulverization; or:

℞.	Sodii bicarb.	ʒv	20	
	Aquæ destil.	℥iii	90	

M. Sig.: To be used as a spray.

In diphtheria associated with fever, turpentine is recommended prescribed with ether to prevent vomiting and mask the taste:

℞.	Ol. terebin. gallici	℥i	30	
	Spts. etheris sulph.	gtt. xv	1	

M. Sig.: One-half a teaspoonful to a dessertspoonful twice a day. If diarrhea appears or stranguary or albuminuria the foregoing will have to be discontinued.

In the treatment of post-diphtheritic paralysis the following is indicated:

℞.	Liq. ferri sesquichlor.			
	Glycerini, āā	ʒiss	6	

M. Sig.: One to ten drops, depending on the age, three times a day after meals.

And besides employing the weak galvanic current, a subcutaneous injection of strychnia is indicated:

℞.	Strych. sulph.	gr. ss		03
	Aquæ destil,	℥i	30	

M. Sig.: Fifteen drops to be given hypodermically once daily.

In the treatment of ulcerous sore throat, accompanied by yellowish-gray exudation, the following is of service:

℞.	Potass. chloratis	ʒss	2	
	Aq. destil.	℥iii	90	
	Syr. simplicis	℥ss	15	

M. Sig.: A teaspoonful to a dessertspoonful every two hours.

Vaginitis.

The following treatment is recommended by *N. Y. and Phil. Med. Jour.* in the treatment of vaginitis:

℞.	Salol	gr. xlv-ʒii	3.-8	
	Glycerini	℥viii	240	

M. Sig.: To be applied locally on a *tampon* every second day; or:

R.	Acetanilidi	gr. xv	1	
	Acidi tannici	gr. viiss		50
	Ext. *hydrastis canad.*	gr. iv		25
	Sacch. lactis	ʒiiss	10	
	Ol. theobrom. q. s.			

M. Ft. suppos. No. i. Sig.: One to be inserted every other day.

Calomel in Tuberculosis.

Martell, in *Internat. Med. Mag.*, recommends calomel in the treatment of tuberculosis because of its elective action toward the glands and because of its action on the tissue cells and its power of combining with metabolic toxic products. Its administration is followed from day to day by a progressive increase in the secretion from the lungs and intestines. The doses in the beginning should range from grain 1/6 (.01) to grain 1/3 (.02) three times a day. If constipation is present the dose should be increased until that is relieved and then return to the original dose. The internal administration is to be accompanied by inunctions, each inunction being preceded by a washing of the skin with tincture of green soap. The mouth must be watched, and on the appearance of the least painfulness, it should be washed out with an antiseptic solution.

Within a few days, after this treatment has been started, elimination will be markedly increased from the bowels, kidneys and genitals of women. As a prophylaxis in children with a strong hereditary taint, this treatment should be employed.

The Drug Treatment of Tuberculosis.

In considering the rôle that drugs play in the treatment of tuberculosis, H. E. Stroud, in *Merck's Archives*, considers the preservation of the nutrition of the patient as of first importance. If anorexia rules the patient will die. To create an appetite he recommends the following bitter combination:

℞.	Orexin tannatis	gr. xlv	3
	Glycerini	℥i	30
	Tinct. gentianæ q. s. ad	℥ii	60

M. Sig.: One teaspoonful before each meal three times a day.

When drugs fail to create an appetite, the author resorts to the starvation method of placing the patient on a single article of food, which he particularly dislikes, for two or four days, at the end of which time he is usually hungry. To increase the nutrition cod-liver oil ranks first, which may be given with iron, arsenic and strychnia to correct the anemia if the stomach is in condition to properly absorb them. The stomach may be kept in condition by lavage, pepsin, hydrochloric acid, etc. The treatment of the cough depends on the stage of the case. In curable cases the opium preparations should be avoided if possible. In advanced cases it is the duty of the physician to relieve the cough, which is the most distressing symptom, no matter how much heroin, dionin, codein, or morphin it may require.

The fever of pure tubercular infection rarely exceeds 100.5 F., otherwise mixed infection is present. There is but one successful plan of reducing the temperature, according to the author, and that is rest in bed and the application of cold water to the hands and face, and, if necessary, the whole body, with an ice bag over the cardiac region. The most certain route to death is being up and about with a tubercular fever.

In the treatment of the fever the use of ergot is strongly condemned. A hypodermic of morphin and atropin should be given at once, and the patient put to bed and the strictest quiet enjoined. Ice may be applied to the chest, also eaten, and if the hemorrhage continues the extremities should be corded at the body just tight enough to check the return flow of venous blood. The cords may be loosened gradually and the blood allowed to flow again. This method lowers the blood pressure, and in the majority of cases checks the hemorrhage. If the hemorrhage comes from too large a vessel it must be ligated, after the plan of J. B. Murphy, of putting the lung to rest by filling the chest cavity with nitrogen gas. Another remedy which is of benefit in checking the hemorrhage is the following combination:

℞.	Calcii chloridi		
	Glycerini, āā	℥i	30
	Aquæ	Oi	500

M. Sig.: One tablespoonful three or four times a day; or:

℞.	Codeinæ	gr. ¼	015
	Pulv. adrenalis	gr. iii	20
	Calcii chloridi	gr. xv	1

M. Ft. capsula No. i. Sig.: One such capsule three or four times a day.

There is no immediate result from the calcium chlorid, but its effect is more permanent than that of any other drug.

To combat the night sweats the nutrition must be kept up and the cause of the fever removed. As a mechanical measure to be employed before resorting to drugs, three bath towels should be wrung out of cold water and applied to the back and shoulders and chest and covered by dry towels. The patient should sleep in this pack and in the morning they should be removed and the chest rubbed with alcohol. Brilliant results follow this treatment. Of drugs, sage tea, cold, at bedtime, is an old and efficient remedy in mild cases. The following combination is more preferable:

℞.	Agaricin	gr. 1/3	02
	Zinci oxidi	gr. iii	20

M. Ft. cap. No. i. Sig.: One such capsule at bedtime.

However, no remedy compares with atropin, and if it were not for the drying action of the mouth and throat no other drug would need mention. The author also states that sulphonal in 10-grain doses (.65) at bedtime tends to check the sweating, as well as to induce sleep, which makes it a very important remedy.

The intestine must be cared for and cleared out with calomel, followed by salines or castor oil. The diet should be regulated and intestinal digestion aided by the administration of pancreatin and inspissated ox gall. Fermentation should be controlled by intestinal antiseptics—the best of which is ichthoform, which also checks diarrhea.

To control the diarrhea, which is usually a late symptom, astringents are frequently required. The following combination is recommended by the author as a very efficient one in controlling the diarrhea, which is due primarily to the general toxic condition:

℞.	Bismuthi subnit.	ʒvi	24
	Ext. coto flu.	ʒi	4
	Pulv. cretæ comp.	ʒiii	12
	Tinct. opii deod.	ʒiss-ʒiii	6.-12
	Pulv. pepsini	ʒi	4
	Syr. zingiberis, q. s. ad	℥iii	90

M. Sig.: Shake and take one teaspoonful after each bowel movement.

In cases where the foregoing fails the following combination is recommended:

℞.	Cupri sulph.		
	Pulv. opii, āā	gr. i	06

M. Ft. pil. No. i. Sig.: One to three pills daily.

If constipation is present the extract of cascara sagrada combined with aloin and fel bovis is advised.

Medicolegal.

Contract by Expert for Percentage of Judgment Is Invalid.—The Appellate Term of the Supreme Court of New York holds, in the case of Laffin vs. Billington, that a contract by a physician to give expert testimony for the plaintiff in a personal-injury case and to receive as his pay a percentage of any amount realized, is invalid.

Presumption as to Continuance of Mental Unsoundness.—The Supreme Court of Indiana says, in the will case of Branstrator vs. Crow, that it is only when mental unsoundness is of a character to appear permanent, and to forbid the reasonable expectation of recovery, that a presumption of continuance will be indulged. No presumption of any kind will arise from intermittent, temporary unsoundness, such as may result from sickness, injury, intoxication or other transitory cause.

Temporary Derangement of Functions Not a "Disease."—The United States Circuit Court of Appeals, Third Circuit, holds, in Preferred Accident Insurance Co. vs. Muir, that, as used in a provision of a policy which excluded death "resulting wholly or partly, directly or indirectly, . . . from disease in any form, either as a cause or effect," the term "disease" was not intended to cover and did not apply to a temporary derangement of the functions of some organ, as, for example, of the stomach.

Exhibitions of Nervous Affections Before Juries.—The Court of Appeals of New York says that, in the personal-injury case of Clark vs. the Brooklyn Heights Railroad Co., the party suing was allowed by the court to leave the witness stand, assisted, and, at the request of his counsel, to exhibit himself to the jury in the act of writing his name and of taking a drink of water. The record represented him, through the stenographer's notes, as taking a glass of water with both hands, and as spilling the water, through the trembling of his hands, and as using his handkerchief in the same manner. The point of this exhibition was to illustrate or to emphasize his testimony that he could use his hands with difficulty, either to hold things or to drink a glass of water. The injuries received when his wagon and a street car collided consisted in the fracture of two ribs, and in various minor contusions, which did not prevent his leaving the hospital the day after.

He was a man of 57 years of age, and it was his assertion that, about two months after the accident, he was affected by a tremor, or a muscular twitching; and medical testimony was given to that effect, and of tests similar to the one described as made on the trial. He recovered a verdict of $10,000, and the appellate division affirmed the recovery, leaving the only question for the Court of Appeals that arising on the exception of the company to the party being permitted to go through his performances before the jury. It says that it thinks that the court should not have stretched its discretion to such an extent; and that, while it may not have been an abuse of judicial discretion, it was on the borderline of such an error. It is not objectionable, in these cases, that the evidence may go beyond the oral narrative, and may be addressed to the senses, provided that it be kept within reasonable limits by the exercise of a fair judicial discretion. It should be only of a nature to assist the jurors to an understanding of a situation or of an act, or to comprehend objective symptoms resulting from an injury. Examples of this class of evidence are frequent—in the exhibition of the person, and of the marks or obvious evidences of injuries sustained, etc. Personal injuries may be simulated and deception may be practiced in such exhibitions, but that can no more be prevented than can perjury in testimony. When, however, proof is attempted to be made by allowing the plaintiff to act out on a judicial stage before the jurors what he or his physicians have testified to be some nervous affection resulting from an injury, the exhibition is improper, because unfair. As something under the sole control of the witness himself, it is beyond the ordinary tests of examination. Nor does such evidence allow of any record, beyond the reporter's notes of what he saw on the trial. It is intended to prejudice the minds of the jurors, and is calculated to affect the calm judicial atmosphere of a court of justice. The plaintiff in such cases has sufficient advantages without adding to them a spectacular illustration of his symptoms. The appellate division, in its general jurisdiction to review the proceedings on trials, might well have ordered a new trial, in the interests of justice. As it is, this court is compelled to affirm the judgment, with costs, because the matter was discretionary.

Attending Physician May Answer Hypothetical Questions.—The Supreme Court of Iowa says that, when a certain physician was called as a witness in the personal-injury case of Crago vs. the City of Cedar Rapids, the parties agreed that he had been one of the attending physicians of the party suing, and no exception was taken to the exclusion of any testimony by him touching his relations to her as a physician. It was also agreed that the record should stand as if the questions propounded to the other experts had been asked him, and the objections separately interposed. The trial court then sustained the objections. Hypothetical questions, without referring to or disclosing the witness' former employment as her physician, were also held incompetent, under Section 4680 of the Iowa Code, providing that "no practicing . . . physician . . . shall be allowed in giving testimony to disclose any confidential communication properly entrusted to him in his professional capacity and necessary and proper to enable him to discharge the functions of his office according to the usual course of practice or discipline." But no communication, confidential or otherwise, was sought to be elicited, and any intention to attempt this was expressly disclaimed. The questions did not refer thereto, directly or indirectly. Manifestly, then, the Supreme Court says, the statute did not authorize the exclusion of the testimony. The record contained no suggestion of the physician's inability to disassociate the facts stated in the questions from what he had learned from his patient. Indeed, the nature of the inquiry seemed to obviate any such difficulty. If, as counsel argued, the jury might infer from the fact he had treated her; that "he knew more about the case than the experts, and would be likely to give great weight to his evidence," this would not justify the rejection of his testimony, but, rather, indicate the necessity for an instruction directing that no consideration be given to such fact. An unfavorable inference is always to be drawn from the omission of a party to call an available witness to the facts in dispute. The failure of an injured person to examine the attending physician as to the nature and extent of his injuries forms no exception to the rule. This, the Supreme Court thinks, marks the distinction between such physician and others, when testifying as experts in response to purely hypothetical questions. It is legitimate matter for the jury's consideration, and not to be obviated by any rulings of the court. The conclusion reached finds support in People vs. Schuyler, 106 N. Y., 298; Valensin vs. Valensin, 73 Cal., 106. See also Herries vs. City of Waterloo, 114 Iowa, 377. But it was insisted that the ruling was without prejudice, for that three experts were examined, and the testimony, if received, would have been cumulative in character. The Supreme Court answers that the court had not limited the number of experts which might be called on each side. Moreover, the mere fact that evidence is cumulative in character will not justify its exclusion. If evidence is cumulative to other undisputed testimony, its rejection has been held to have been without prejudice. But where there is a sharp conflict in the evidence, as there was in this case, the number or character of the witnesses often control, and the erroneous rejection of the testimony of any can not be held, as a matter of law, to have been without prejudice.

Current Medical Literature.

AMERICAN.

Titles marked with an asterisk (*) are abstracted below.

Medical News, New York.

March 5.

1 *The Pathologic Anatomy of Shiga Bacillus Infection of the Intestines in Infants. John Howland.
2 *The Utilization of the Lower Lip in Rhinoplasty. A New Procedure. Carl Beck.
3 A Simple and Inexpensive Rheostat to Use with the Electric Light Current. David T. Marshall.
4 *Traumatic Pyelo-paranephric Cyst. Bern B. Gallaudet.
5 *Ergot in Alcoholism, [illegible] General Class of Drug Habit Cases. [illegible]
6 *Suture of the Omentu [illegible] 'eritoneum (Epiplopexy) for Ascites. Joseph H. Branham.

Boston Medical and Surgical Journal.

February 18.

7 *Slipping or Recurrent Dislocation of the Patella. With the Report of Eleven Cases. Joel E. Goldthwait.
8 *Scientific Aspects of Moderate Drinking. Francis G. Benedict.
9 The Use of Obstetric Forceps. Warren R. Gilman.

1. **The Shiga Bacillus.**—Howland reports the results of autopsies in the New York Foundling Hospital, the Babies' Hospital and the Nursery and Child's Hospital. The Shiga bacillus was proved to be present in the great majority of cases by examination of the stools, but in 7 cases it was obtained postmortem by scraping the mucous membrane of the colon, and in 3 cases was obtained both antemortem and postmortem. All corresponded to the type known as the "acid," "Harris" or "Flexner-Manila" bacillus. It did not ferment glucose, saccharose or lactose, but did split mannite with acid formation. It produced an early acidity in milk with a subsequent alkalinity, and agglutinated with the "Harris" serum in high dilutions. The first 17 cases were winter cases and the last 15, summer cases. There seemed to be no difference in the histologic findings between the two. Four cases are reported in full detail and discussed. The conclusion is that the Shiga bacillus infection has a most diverse pathologic anatomy, and a large percentage of the fatal cases show no evidence of profound structural lesion. The question arises as to how much of the process is to be regarded as due to the Shiga bacillus. The evidence, the author thinks, is in favor of the belief that the primary necrotic lesion is the result of the action of the dysentery bacillus, the subsequent ulceration being brought about probably by the inter-action of various micro-organisms and the ordinary processes of demarcating inflammation. The lesions in the intestines must be considered as of two kinds: 1, Those due to the dysentery bacillus, and 2, those from toxic products of this and perhaps other organisms. He says that in summing up the evidence we shall

have to say that there are comprised under the lesions associated with the Shiga bacillus all grades and types of diarrheal disease as distinguished by clinical symptoms and pathologic findings, and that it can be affirmed that no particular type is distinguished from the others by a special etiology.

2. **Rhinoplasty.**—Beck's method is hard to explain without his diagrams. His technic consisted in cutting a triangular flap, extending from one side of the chin to the lower lip and carrying it upward to form the side of the nose. The results, while not perfect, are decidedly palliative as regards the cosmetic effect. The advantages, he thinks, are in the possibility of supplying throughout the whole area of the defect a mucous membrane which would restore normal conditions as far as possible. The broad wound-surfaces and the fact that the flap need not be larger than the defect because no shrinkage is to be expected, are other points in its favor. In the case reported, the patient had had recurrences of epithelioma. Whether the operation will influence the tendency to recurrence remains to be seen, but he thinks the prospects are more favorable than previously.

4. **Pyelo-Paranephric Cyst.**—In the case reported by Galaudet, the paranephric part of the cyst was so closely connected with the renal pelvis that there was not only a cavity in common, but also a continuous cyst wall, partly of paranephric tissue and partly of pelvic wall. This condition, he thinks, must be rare, as he does not find it much noticed in the literature. His theory of the case is that: 1. The first traumatism ruptured the pelvis of the kidney and also caused a hematoma, both within the pelvic cavity and within the paranephric tissue; 2, as time went on the blood was gradually absorbed, and the thickened capsule (extrapelvic portion) of connective tissue was formed from paranephric tissue; 3, the opening into the pelvis, however, remained, but the capsule was strong enough to hold any urine that might come through and prevent its extravasation; and 4, a second traumatism caused a fresh hematoma, partly by tearing the inner surface of the capsule and partly by causing small lacerations of the kidney.

5. **Ergot in Drug Habits.**—Livingston advocates his method of using ergot hypodermically in cases of drug habit, and remarks that the objections which have previously existed to this method have been practically remedied by the special efforts of some pharmaceutical houses, who have succeeded in producing a solution of ergot for hypodermic use which does not cause local inflammation when properly injected aseptically. The first step is the complete discontinuance of the use of the narcotic, and insuring that the patient has no access to the drug or any substitute. Within twenty-four to thirty-six hours there will begin in the extreme cases a violent reactionary stage, the basis of which is a dilated state of the blood vessels in the nerve centers, and this may be modified by the action of ergot on their muscular coat. At the same time he gives a mercurial purgative, followed in a few hours by a sufficient saline to assure prompt purgation. This avoids the irritating effect of a loaded bowel on the brain and cord, and prepares the digestive tract for service during the coming ordeal. He also discontinues the ordinary meals, gives abundant fluid and easily digested nourishment every three hours. The best he knows is a paste consisting of the ordinary fluid extract of beef, to which has been added the desiccated and pulverized fibrin. The whites of two eggs dissolved in a glass of cold water, to which a pinch of salt has been added, make another good three hours' interval meal. He also uses some of the cereal preparations. With the exception of the egg, it is better to give all these liquid foods quite warm or hot. Use no nutritive prepared with alcohol. The bowels should be kept open at least once a day, and better two or three times. He prefers the fluid extract of *Rhamnus frangula* for this purpose, in doses of one or two drams at bedtime and possibly also in the forenoon and afternoon. The frequency of the ergot dosing will depend on the degree of addiction and the general condition of the patient. The larger the daily dosage has been and the greater the nervous prostration, the greater is likely to be the reaction following the discontinuance and the greater should be the effort to counteract it. In general, the range would be from 2 to 3 doses per diem to one every two hours in extreme cases, the dose being .5 dram of his solution or of Squibb's new extract of ergot for hypodermic use—the two being practically the same. The morphin habitués are the hardest to treat. Compared with these the worst of the alcoholic cases is simplicity itself, if ergot is properly used. No matter what the degree of addiction, he would not for a moment consider the plan of "tapering off." He has never had in all his cases a request from the subject for his drug or a substitute after the first forty-eight hours. He says he has been repeatedly asked by a doctor-patient what under the sun he had been giving him, supposing that he had been using a substitute, as the patient had not had an ill feeling. It is desirable to avoid any hypnotic or narcotic drugs in the treatment, and while he is opposed to the "tapering-off" treatment, he admits that there are many excellent physicians who would not persist in the method he employs himself, and suggests a modified plan for their use; that is, to give with two of the hypodermics of ergot, each day, a fractional part of the quantity of morphin or opium that had been daily consumed; one-tenth part will be found sufficient if the ergot is given often enough, and gradually reducing it each succeeding day.

6. **Epiplopexy.**—Branham reports a case of Talma's operation which has these points of interest: 1, Vascular adhesions showing Nature's effort to form a collateral circulation; 2, subsequent pleural effusion with no ascites, indicating that good collateral circulation had been established for the portal system; 3, marked improvement in the patient's general condition, showing a better functioning of the liver and intestinal organs after the operation.

7. **Recurrent Dislocation of the Patella.**—The slipping or recurrent dislocation of the patella is seen almost entirely in girls and women. It is largely due to the fact that the line of pull of the quadriceps is not straight, this feature being increased in its effect by an unnaturally long patellar tendon, knock-knee or imperfectly developed anterior surface at the end of the femur. Goldthwait has treated 11 cases, 7 operative, with 13 operations, and gives the results of his experience here, describing the conditions anatomically and reporting cases. The operation which he performs at present consists in a longitudinal incision four or five inches long, extending from just below the tubercle of the tibia upward. Through this the patellar tendon is exposed and split in halves, anteroposteriorly, throughout its full length. The outer half is then cut from its attachment, passed under the remaining portion and attached to the periosteum, together with the expansion of the tendon of the sartorius at the inner side of the anterior surface of the tibia. If it is desirable to shorten the patellar tendon, the attachment can be made so that the patella is drawn down as much as is required, but this means more tension, and a hole should be drilled in the bone at the point of attachment through which the suture is passed which holds the tendon. The carrying of a piece of tendon under the other is important, as the patella is tilted, the outer portion being drawn downward and presses more firmly on the outer ridge of the articular surface of the femur, so that the danger of slipping is lessened. The attachment is made with strong silk, quilted through the tendon; the wound should be tightly closed and the leg fixed in a plaster-of-paris bandage from ankle to groin, the contraction of the quadriceps extensor being eliminated as much as possible by applying a tight-gauze bandage from the knee to the groin under the plaster. The fixation should be kept up for about six weeks. In this operation the direct pull is continued by a portion of the tendon left undisturbed, so that in case the transplanted portion fails to unite, function is still retained, and some improvement must result, as the simple removal of the outer half of the tendon changes to some extent the direction of the pull. He reports the results, which seem to be fairly satisfactory.

8. **Moderate Drinking.**—Benedict discusses the use of alcohol, and especially the dangers of moderate drinking. He thinks that in any case, while alcohol in small amounts may not produce a change in the tissues, it does retard the physical

and mental growth of youth. The habit-forming tendency must always be regarded.

American Medicine, Philadelphia.

March 5.

10 *Recent Researches in Radioactivity and Electricity. Their Bearing on Radiotherapy. Legal Status. J. Sherman Wight.
11 A Case of Acute Leukemia, with Death Due to Rupture of the Spleen. Joseph L. Miller and Julius Hess.
12 Diphtheria of the Vagina with Secondary Involvement of the Mouth, Rectum and Skin. Thomas W. Salmon.
13 *The Diagnosis and Treatment of Congenital Misplacement of the Hip in Infancy. Albert H. Freiberg.
14 An Original Operation for Complete Laceration of the Female Perineum. C. E. Ristine.
15 *Enuresis. George E. Beilby.
16 Six Months' Work in a Dispensary for Diseases of the Lungs. Thomas H. A. Stites.

10. **Radioactivity.**—Wight's paper is largely a physical and physicochemical explanation of the radiation phenomena, with some therapeutic and medicolegal points mentioned. He has used the effect of high-frequency discharges in skin grafting, and describes the technic as follows: Render the granulating surface sterile; curette it to receive the grafts, and while it is still oozing place the grafts of any form desired in position and bathed in blood. Then apply the high-frequency discharge from a pointed electrode over the entire surface until the clotting is firm and the grafts are fixed on a dry surface. Any serum that is squeezed out in the process of clotting should be sponged off. The dressing is with 3 per cent. carbolized vaselin on plain sterile gauze, and is removed at the end of the third day. The progress of the growth is more rapid than with the ordinary method. Repair was hastened in some cases, in which the secondary Röntgen rays were used at the end of the first week. Six cases are reported. In conclusion, he remarks on the question of the danger of the *x*-ray burns, and refers to some cases. He suggests a blank form, containing all information in regard to the form of apparatus, previous exposure to radiation, distance, time, register of penetration, protection to the adjacent parts, and part exposed. He thinks such a blank filled out by the operator and signed by the patient will be a valuable record of the case and have the force of a waiver in the event of litigation.

13. **Congenital Hip Dislocation.**—Freiberg calls attention to the fact that this dislocation may produce very few symptoms in the first two years of life, but the abnormalities steadily increase during the period that it exists. Shortening to an appreciable extent appears with the development of the weight-bearing function only. When a child begins to learn to walk with limping the diagnosis is easily made. The radiograph, valuable as it is, can not be used with accuracy in determining the progress after reduction. Operation is feasible after the age of one year. The ease and stability of reduction when done early is notable. He says that having discovered that imperfect formation of the hip joint exists before the contact of femur and acetabulum has been markedly disturbed, it should be possible to prevent the further progress of luxation and secure a good joint. This would be accomplished by maintaining the limb in decided abduction, say 25 degrees, during the act of walking. The plaster spica worn for a period of six months in this position should rightly be considered the best means of attaining this end.

15. **Enuresis.**—Beilby has examined some 250 cases in the State Industrial School at Rochester; 75 had been under treatment for this symptom. Only 2 of them were imbeciles. There were in no case marked abnormalities of the urine or signs of vesical or rectal irritation, and in only a few cases was there enough phimosis to be assigned as a cause. He thinks that irritability of the spinal center should be incriminated as a cause in the majority of cases. He also gives great importance to the bad habit of masturbation, and thinks that it is the cause in at least 90 per cent. of all cases among youths and adolescents in institutions. The treatment should be by appealing to the moral sense, improving the physical condition and relieving the congestive or irritative condition of the lumbar cord.

Medical Record, New York.

March 5.

17 *The Treatment of Gunshot Wounds by British Surgeons During the War of the Revolution, 1775-1783. Stephen Smith.
18 *The Rationale of the Natural Arrest of Consumption; a Study Explaining the Effect of Sea Voyages, Outdoor Life, etc., on the Disease, with Suggestions as to Ideal Treatment. W. B. McLaughlin.
19 *Running Ear. A. C. Bardes.
20 *Neuralgia Due to Dental Irritation. William J. Lederer.
21 *The Physiology of Hunger. Axel E. Gibson.

17. **Gunshot Wounds.**—Smith gives an interesting review or résumé of a treatise by H. St. John Neale, who was surgeon to a British regiment during the Revolutionary War. Smith points out how in his methods of treatment he was in some respects modern, and had remarkable success in the treatment of gunshot wounds.

18. See abstract in THE JOURNAL of March 5, p. 672.

19. **Running Ear.**—Bardes calls attention to the importance of chronic ear suppuration as leading to further complications.

20. **Neuralgia from Dental Irritation.**—The forms of neuralgia which may be due to dental disease are noted by Lederer, who suggests an examination by careful exploration of the teeth, gums and roots as to sensitiveness to heat and cold and the translucency of the tooth by the electric-mouth lamp, for pulp changes. Each tooth should be carefully percussed to determine the pericemental changes, and tested with an electric current as to its sensitiveness which frequently discloses pulp lesions. Another important measure is to question as to the systemic condition of the patient so as to bring out any predisposing factor. The prognosis of dental neuralgia is favorable unless it is associated with malaria and syphilis, and then it passes out of the hands of the dentist. The systemic condition of the patient should be looked after and properly treated, and the diet regulated, especially in Rigg's disease. If an infection like malaria exists, the exciting cause must, of course, be removed. Neuralgia may be due to injuries in extracting teeth, such as fracture of the alveolus, and this occasionally produces puzzling cases. Foreign bodies in the gums or alveolæ are frequently overlooked, and exostosis or hypercementosis may be the cause, as also impacted teeth. In many cases odontalgia is not a symptom of the malady, but the pain is reflected to another part, and these cases are frequently mal-diagnosed until the condition is properly recognized.

21. **Hunger.**—The principal point made by Gibson is that hunger can be modified by mental effort. If we keep the thoughts and images of food out of our mind the gastric secretion will receive no stimulation and the hunger be kept in abeyance. Keep the mind off the enticing subject and encourage no ideas of gratification.

New York Medical Journal.

March 5.

22 *The New Biologic Test for Human Blood, with a Report of Its Employment in a Recent Murder Case. (To be concluded.) A. Robin.
23 Post-diphtheritic Paralysis of Accommodation, with Report of a Case. Aaron Brav.
24 *Thrombosis of the Jugular Veins in Pulmonary Tuberculosis; with Report of a Case. Charles J. Aldrich.
25 Impressions of the Tuberculosis Exposition at Baltimore. John B. Huber.
26 *Preliminary Report of Bilateral Excision of the Superior and Middle Cervical Sympathetic Ganglia in Five Cases of Epilepsy. S. D. Hopkins.
27 Tertiary Syphilis of the Nose and Pharynx. (Continued.) W. Scott Renner.
28 The Treatment of Paraphimosis. Richard L. Sutton, Z. E. Lewis and John Gilbert.

22. **Biologic Blood Test.**—This portion of Robin's article gives the history of the test and a general review of the literature.

24. **Thrombosis of the Jugular Veins in Tuberculosis.**—The complication of thrombosis of the jugular vein in tuberculosis was noticed many years ago by Lasègue. Since then Aldrich has been able to find only 9 cases in the literature. He adds his own observation, which was that of an advanced case of chronic pulmonary tuberculosis with left internal jugular thrombosis and extension of the thrombus through the subclavian, down the axillary into the basilic veins, and subsequently a similar thrombosis of the other side following a similar course, with terminal cerebral sinus thrombosis by extension. In the epicritical remarks he discusses the bacteriology, suggesting that there may be a clumping of tubercle bacilli from the agglutinating power of tuberculous blood, favoring development of fibrin ferments, but the main cause must lie in

the vessel wall. Of course, it is possible that a general septic condition of the blood in late phthisis may produce a true fermentation thrombosis, but this does not explain the cases occurring early in the disease. Changes in the intima caused by lodgment of specific bacilli or other micro organisms is what he is inclined to recognize as the cause of the condition; the slowing of the current can have but little effect. Certain anatomic conditions may favor thrombosis and determine the location, thus the sitting posture with dependent limbs accounts for the frequent occurrence of femoral thrombosis in phthisis, and the rather common beginning of thrombosis in the lower end of the jugulars in various heart and lung troubles may be accounted for by the presence of valves in that situation, as suggested by Peter in 1873. Welch speaks of the eddying or whirling motion of the blood set up in this region as having something to do with the cause, and von Recklinghausen has brought forward strong evidence that this whirling movement is of great importance in determining the localization of thrombi. Aldrich adds that the distressing cough in the late stages of phthisis may also be a potent agent to pouch out the bulb and strain and distend its ill-nourished intima. The sudden aspiration of its contents alternating with the distension is certainly conducive to a vortical motion of the blood. In view of all these facts it is remarkable, he says, that jugular thrombosis is not more commonly associated as a complication of pulmonary phthisis.

26. **Epilepsy.**—Hopkins holds that one of his five cases has gone a sufficient length of time to justify him in considering the patient cured, namely, two years and one month. In the other cases a sufficient length of time has not yet elapsed to say whether or not they are permanently benefited.

St. Louis Medical Review.

March 5.

29 Presentation of Pathologic Specimens: Horseshoe Kidney, Foreign Body in Appendix, Mitral Stenosis, etc. Howard Carter and others.
30 My Autobiography and Reminiscences. (Continued.) S. Pollak.

Cincinnati Lancet-Clinic.

March 5.

31 *Critique of the Usual Clinical Methods for the Quantitative Determination of Sugar in the Urine. J. Henry Schroeder.
32 A Case of Stab Wound of the Pons Varolii. Horace J. Whitacre.
33 Fracture of the Skull. Clarence H. Vaught.

31. **Sugar Tests.**—Schroeder examined critically the fermentation test by the saccharometer, and Roberts' test for specific gravity and the quantitative test by means of Fehling's solution. He concludes that the fermentation tests, with properly constructed instruments, give good results, and as they do not require previous purification of the urine, they are peculiarly adapted to the needs of the physician. The Einhorn fermentation saccharometer gives constant and satisfactory results when properly constructed, and when comparative tests are made at a temperature of from 65 to 75 F., and the sugar strength is within the limits of the instrument. To avoid loss of time from miscalculation in diluting the urine, two different dilutions should be tested at the same time, one serving as a control of the other. In view of these satisfactory reactions we need not lay too much stress on Fehling's solution.

Proceedings of the Pathological Society of Philadelphia.

December.

34 *The Development of Hemolymph Nodes in Adipose Tissue. Aldred S. Warthin.
35 *Demonstration on Cryoscopy. Henry W. Cattell.
36 *Pseudoparasitism Caused by the Common Clothes Moth. Joseph McFarland.

34. See editorial in The Journal, March 5, 1904, p. 652.

35. **Cryoscopy.**—Cryoscopy, according to Cattell, has a valuable though somewhat limited use among laboratory methods. It is easily applied and the apparatus is portable. Repeated cryoscopic examination of the urine taken in connection with that of the blood affords a valuable means of determining the renal sufficiency, but it should be supplemented in doubtful cases by electric conductibility, the phloridzin, dilution and other laboratory tests. It may be employed as a quantitative method for the determination of such abnormal constituents of the urine as sugar, and as a qualitative test for the presence of beta-oxybutyric acid in the urine, formalin in milk, etc. The relation of the specific gravity in health to cryoscopy is quite constant. In disease it varies much according to the conditions, the drugs taken, the temperature, the amount of sodium chlorid in the urine, etc. There is a personal equation in performing this test, which should always be determined by the testing of distilled water with the conditions to be used in the experiment and correcting the error, whatever it may be. The cryoscopic index of human blood is quite constant, —0.56 C., that of the fetus being slightly less, while the index of twenty-four hours' urine varies from —0.8 to —0.2 C. in health. Cryoscopic observations may be an important corroborative test in medicolegal cases, as in drowning and in differentiating the blood of different animals.

36. **Pseudoparasitism.**—McFarland reports a case where a common clothes moth, which has a naked caterpillar, led to the diagnosis of parasites in the intestine. It had dropped from the mattress, which was badly infested with these moths. While pondering on the first mistaken diagnosis, he became impressed with the possible danger from the breakfast cereals which are eaten raw should insect larvæ infest them.

The Therapeutic Gazette, Detroit.

February 15.

37 *Practical Lessons from an Experience of More Than One Hundred Cases of Eclampsia. Barton Cooke Hirst.
38 *Surgical Treatment of Recent Fractures of the Patella. Edward Martin and T. T. Thomas.
39 *Dionin—A New Agent in Ophthalmic Therapeutics. Wendell Reber.
40 *The Treatment of Astereognosis by Re-education. Charles W. Burr.
41 *The Gradual Restriction Method of Cure in Morphin, Cocain and Other Drug Addictions. S. Ormond Goldan.
42 Cholelithiasis, with a Report of Two Cases. John B. Shober.

37. **Eclampsia.**—Hirst holds to the nephritic origin of eclampsia, and does not believe in too rapid evacuation of the uterus and not at all in cesarean section. He would rather produce labor slowly than resort to a forced delivery, employing the elimination treatment by diuresis, catharsis and diaphoresis, which should be actively employed. For convulsions, we must eliminate the poison and quiet the nervous irritability. It is generally agreed that normal salt injections, sweats and purgation are the most reliable eliminants. Venesection may be classed among these, but he rarely uses it now. Of the sedatives, chloral and opium dispute the field. He thinks the latter intereferes with elimination, and a large dose may cause fatal poisoning in view of the inactivity of the kidneys. For the relief of arterial tension he would use veratrum viride. He closes by recommending hospital treatment for such cases.

38. **Fractured Patella.**—The summary of the treatment of this accident is given by Martin and Thomas as follows:

> 1. The conservative treatment of fracture of the patella is applicable to blow or tear fractures in which the separation of the fragments is not greater than one half inch when the knee is flexed to a right angle, and in which there is no great joint tension. Conservative treatment consists in fixation for ten days, the application of adhesive strips to approximate the fragments, the use of elastic bandages to prevent inflammatory exudation, and the employment of massage and passive movements. 2. All fractures of the patella, independent of the amount of fragment separation, attended by marked and immediate joint tension, should be treated by the open method. 3. All fractures of the patella in which the fragments are separated more than one-half inch when the knee is bent to a right angle should be treated by the open method; the torn tendinous expansions of the quadriceps being closed by mattress suture, and the patellar fragments being united by silver wire, the insertion of the latter being facilitated by the use of a bone drill with an eye in its boring end.

The article is illustrated by skiagrams and drawings.

39. **Dionin.**—This remedy is highly spoken of by Reber, who holds that it has properties possessed by no other drug. It is an analgesic of value, relieving the pain of iritis where atropin fails. It enhances the value of atropin, and is a powerful dilator and lymphagogue in the eye. If used to the point of distinct reaction, it promotes the absorption of exudation deposits on the anterior capsule in the pupillary space, and also helps the absorption of post-operative débris after cataract. It certainly does help to clear up corneal opacities in some cases of interstitial keratitis, but is ineffective in all other forms. Its effect on glaucoma is unsettled. He thinks it

should be widely used and the results reported, so that we may have a thoroughly correct estimate of its value.

40. **Astereognosis.**—The method of treatment for this condition as recommended by Burr is educational, based on the *idea Frenkel utilized in the treatment of ataxia.* He holds that the sensory cortical cells may be diseased so as to have lost the impression of previous sensory stimuli, *yet be normal* enough to take and preserve new impressions, and that the neighboring cells may take on the function of those destroyed. He therefore recommends the simple method of re-educating the patient by handling and feeling different objects to determine the size, weight and texture. The treatment should be persisted in for weeks and months, but if there is no improvement *after a daily quarter of an hour lesson for a month,* it is hardly worth while continuing the treatment. He thinks, however, the treatment promises well in many cases.

41. **Drug Addictions.**—Goldan believes in hyoscin hydrobromate as a true specific in drug addictions, given in small dose, as the other drug is withdrawn as rapidly as circumstances will permit, giving a larger quantity at night. It is rarely necessary to give over 1/100 of a grain, and the beginning dose should be smaller. The elimination function should also be *stimulated at the same time and gastric lavage employed.* The neurasthenia should be treated afterward. A valuable remedy is glycerophosphate, given preferably hypodermically.

Colorado Medicine, Denver.

February.

43 *Shall We Abandon the Use of Antitoxin? F. E. Waxham.
44 *Therapeutics of Whooping Cough. J. Tracy Melvin.
45 *The Results of X-ray Treatment. Samuel B. Childs.
46 *The Rectal Syphon. R. W. Corwin.
47 *A Treatment of Tubercular Ulcerations of the Rectum and Peri-anal Region. D. P. Mayhew.
48 Puerperal Infection. Clarence L. Wheaton.

43. **Diphtheria Antitoxin.**—Waxham reviews the statistics of antitoxin, pointing out the benefits, but reports two cases, occurring within his knowledge, of death after the injections. *He does not attribute the deaths to the injection entirely,* but partly to nervous shock and possibly also to other medication. In one case the injection may have entered the vein and to some extent can be considered the cause of death. These instances, however, he holds do not outbalance the advantages. The life-saving power of antitoxin can hardly be overestimated.

44. **Whooping Cough.**—Melvin uses atropin to palliate the symptoms in older children and in small children and infants depends on crude carbolic acid vaporized from a heated surface. He uses *formaldehyd in the same way at night, and in the day* when practicable, with older patients. He thinks the severity of the symptoms are relieved and the attack shortened in the majority of cases without serious discomfort to the patient by these means.

45. **The X-Rays.**—The therapeutic effects of the *x*-rays are discussed by Childs in a number of diseases, and he reports his experience. He thinks *in superficial malignant growths this* treatment has the advantage of leaving the smallest scar, and is also useful *in many* local disorders, like acne, rosacea and psoriasis that are resistant to other treatment. The results in tubercular glands are also encouraging, and the large masses of glands in Hodgkin's disease appear to be susceptible to this treatment. The *x*-rays should not be used in any operable deep malignant growths, except where a surgical operation would sacrifice an extremity, or perhaps, as suggested by Pusey, with a view to limiting the operation by checking the growth if operation at once is not considered advisable. The rays are useful even in inoperable growths as a palliative, and they should be used in all cases after operation as a prophylactic against recurrence. The area of exposure should be wide and the intensity and quality of the rays should be adapted to each case.

46. **The Rectal Siphon.**—Corwin suggests the use of a tube used somewhat like the stomach tube, to be employed in siphoning out the bowels and to aid Nature where it is required. The rectal siphon overcomes the difficulty and suffering when the pelvic orgns are inflamed, and of forcing a movement of the bowels when in a horizontal position.

47. **Tubercular Ulcerations of the Rectum.**—The treatment here recommended by Mayhew is to paint the ulcer with a saturated solution of trichloracetic acid, care being taken not to allow it to spread over the healthy tissue. This is repeated *the next day, and after waiting a few minutes for the acid to* act, the pellicle of tissue which has been destroyed is removed with *a curette. No anesthesia is required.* This is repeated, if necessary, until the shining fibrous layer underlying the ulcer is reached. The overlying edges are destroyed by the acid, and at the next séance will be found to have disappeared. In this way the tissue can be removed without destroying the barrier Nature has set up. An ulcer thus cleaned is dusted with some iodin-containing powder, and, if external to the anus, is covered with a dry pad well dusted with the same powder. The patient should be seen every other day, and at the next visit it will often be seen that the floor of the ulcer is covered with healthy granulations, and the mucous membrane or the skin encroaching to cover the edges. In this case the acid need not be repeated. Simple painting with Lugol's solution and dusting with an iodin powder is all that is required. As *often,* however, as the ulcer looks unhealthy and the granulations show signs of breaking down, the acid and the curette should be employed. If the ulceration is *within the rectum* the treatment should be supplemented by treatment of the rectal mucosa, which is generally catarrhal. He uses for this the fluid extract of krameria twice daily in the proportion of 1 and 1½ ounces to the pint of hot water followed by a dram of a 5 to 10 per cent. solution of protargol, which is to be retained. *In this way the ulcer is converted into a simple ulcer and there may be some pain, but this, as a rule, is a good sign.* He reports several cases.

American Journal of Insanity, Baltimore.

January.

49 *The Anatomical Facts and Clinical Varieties of Traumatic Insanity. Adolf Meyer.
50 Apparent Recovery in a Case of Paranoia. Richard Dewey.
51 *Notes on Malignant Growths in the Insane. John R. Knapp
52 A Report of a Case of Myoclonus Epilepsy. Irwin H. Neff.
53 *The Present Status of Paranoia. William McDonald.
54 *Korsakoff's Psychosis—Report of Cases. Harry W. Miller.
55 *Paranoid Dementia.* C. W. Page.

49. **Traumatic Insanity.**—Meyer reviews the general subject of *traumatic insanity, including all the various types,* and offers the following classification:

1. The direct post-traumatic deliria with the following subdivisions: *a,* Pre-eminently febrile reactions; *b,* the delirium nervosum of Dupuytren, not differing from deliria after operations, injuries, etc.; *c,* the delirium of slow solution of coma with or without alcoholic basis; *d,* forms of protracted deliria usually with numerous fabulations, etc. (with or without alcoholic or senile basis). 2. The post-traumatic constitution: *a,* Types with mere facilitation of reaction to alcohol, grippe, etc.; *b,* types with vasomotor neurosis: *c,* types with *explosive diathesis; d, types* with hysteroid or epileptoid episodes with or without convulsions (such as most reflex-psychoses); *c,* types of p[illegible] 3. *The traumatic defect conditions: a,* P[illegible] to aphasia; *b,* secondary deterioration in [illegible] psy. *c,* terminal deterioration due to progre[illegible] the primarily injured parts, with or without arteriosclerosis. 4. Psychoses in which trauma is merely a contributory factor: *a,* General paralysis with or without traumatic stigmata; *b,* manic-depressive and other transitory psychoses, catatonic deterioration and paranoiac conditions, with or without traumatic stigmata. 5. Traumatic psychoses from injury not directly affecting the head.

The outcome has not been so unfavorable in his cases as Guder's statistics show, though the time is too short to settle the question. Aside from what is indicated symp*tomatically, the possibilities of therapeutic interference* are not very great. In any case depression of the skull should be looked for, and also clots even where no injury is noticeable. Where no indications for operation are present the avoidance of alcohol and irritating factors is of decided importance.

51. **Malignant Growths in the Insane.**—Knapp has analyzed the cases *occurring in the Manhattan State Hospital,* east, and finds that one patient out of every 626 under treatment died from malignant growth, and of every 217 deaths one death was from this cause, a much larger proportion than is shown in the general population. Short detailed descriptions are given of some of the cases. He suggests that *failing* inhibition in the insane favors the *morbid process,* and he thinks that a systematic study of malignant growths in mental dis-

orders might be a valuable help in elucidating the general question of their origin and pathology.

53. **Paranoia.**—McDonald reviews the various forms of paranoia, so-called, and concludes that a large proportion of those so classed must fall into one of the subdivisions of the type of dementia precox. In these cases there is more or less mental impairment and hallucination. The delusions are not really systematized or fixed, and the incoherence of thought is evident in the spoken or written expressions. There is a class of patients in which the paranoid delusions occur in the natural course of development and because of defective organization. These are the original paranoiacs of some authors. There is also a paranoid form of alcoholic insanity. Though paranoid symptoms occur often in senile dementia, in paresis, in manic-depressive insanity and in melancholia, the characteristic stigmata of these forms of mental disorder will aid in the diagnosis. A study of all the patients, old records and classical cases in the literature has thus far failed to present to him a case that could not be classified better in some other type than be called pure paranoia. He, therefore, apparently rejects paranoia as a distinct entity among mental disorders.

54. **Korsakoff's Psychoses.**—Miller's paper is an interesting summary of facts, and a review of the literature with a report of a number of cases of this particular form of mental disease.

American Journal of Obstetrics, New York.

February.

56 *The Etiology of the Ischuria in Retroflexion of the Gravid Uterus. Charles B. Reed.
57 Some Suggestions That Should Be Given the Young Primipara Before and After Parturition. George W. Cook.
58 *Shall a Pseudo-hermaphrodite Be Allowed to Decide to Which Sex He or She Shall Belong? Fred J. Taussig.
59 A Contribution to the Function of the Corpus Luteum. Emil Ries.
60 *Further Remarks on Gonorrhea: Its Complications and Our Responsibility in Authorizing Matrimony. Joseph T. Johnson.
61 Statistical Notes on Causes of Salpingitis. Frank T. Andrews.
62 Infravaginal Elongation of the Cervix. Marcus Rosenwasser.
63 *Modified Porro Operation. Carl Wagner.
64 Pelvic Cellulitis. R. P. McReynolds.
65 *Tuberculosis of the Female Genitalis and Peritoneum. (Concluded.) John B. Murphy.

56. **Ischuria in Retroflexion of the Gravid Uterus.**—Reed has studied this subject thoroughly, and concludes that the retention of urine in retroflexio-version is not due to direct compression of the urethra or bladder neck, mechanically closing the lumen, but must be regarded as a sort of "pressure paralysis" due to interference with the nerves supplying the bladder. Compression of the principal motor nerve is the most common cause. The part most subject to pressure is the pelvic ganglion of the uterus, though the nerve may be affected in any part of its course. Compression of the sensory nerves may rarely produce retention. Both afferent and efferent filaments may be affected simultaneously, but the order is usually consecutive. Pathologic conditions of the pelvis and abdomen irritating the sensory fibers of the bladder cause the so-called "irritable bladder." The retention of urine postpartum and after laparotomy for tumors is due to diminished intra-abdominal pressure, weakness of the abdominal muscles from over distention and the dorsal decubitus.

58. **Pseudohermaphroditism.**—Taussig concludes that we must in dubious cases do one of two things: either wait until the twenty-fifth or thirtieth year for the appearance of some sign, such as menstruation or the descent of the testicle, or perform a diagnostic laparotomy to determine the sex. After the sex has been thus determined in one or the other way then the external plastic operations that are asked for can be safely performed.

60. **Gonorrhea.**—Johnson thinks that the subject of gonorrhea is of the greatest importance, and that a very large proportion of men, even 90 per cent. according to his own observation, acquire the disease. The results in serious pelvic complications in women and the great number of abdominal sections required in their treatment, the dangers of puerperal infection and of ophthalmia neonatorum and the complications following gonorrheal infection in men are matters serious enough to call for the close attention of the physician and make him feel his responsibility in advising men who have been treated for gonorrhea as to the matter of marriage.

63. **Modified Porro Operation.**—The modified method here described by Wagner consists in grasping the cervical portion of the uterus, then inserting four forceps around the circumference so as to furnish a line for the incision and also for lifting the stump after amputation. Holding the scissors in a slanting position, he amputates the uterus with a few heavy strokes, while the moment it is opened the assistant introduces a finger to hold back the head and membranes. By holding the scissors slanting, the outer blade higher than the inner, and keeping the blade inside the uterus in contact with the mucous membrane, he avoids injury to the head and membranes, and has a conically formed stump, which allows very easy adaptation. The whole procedure in his hands only took one minute, which is a great advantage for the chance of life of the child, and was absolutely bloodless. In the case reported the patient made an uneventful recovery and left the hospital in twenty days. This modification of Porro's operation has proven in his hands safer and easier than the statistics of the ordinary Porro operation show, with a minimum consumption of time and loss of blood.

65. **Genital Tuberculosis.**—Murphy here finishes his elaborate monograph on tuberculosis of the female genitalia and peritoneum. It is too elaborate to summarize in the space we could devote to it.

Archives of Pediatrics, New York.

February.

66 *A Study of 337 Cases of Enteric Fever in Children. Samuel S. Adams.
67 *A Study of the Condition of the Upper Air Passages Before and After Intubation of the Larynx. Also, an Inquiry Into the Method of Feeding Employed in the Cases. Louis Fischer.
68 Diastasis of the Recti Muscles in Rickets with the Report of a Marked Example in an Infant. Albert P. Francine.
69 Subphrenic Abscess in Children. John H. Jopson.

66. **Enteric Fever in Children.**—Adams analyzes and tabulates 337 cases of enteric fever in children, and notes the peculiarities. The greatest difficulty in the diagnosis was to differentiate it from estivo-autumnal malaria when the blood examination was negative. Observation and repeated blood examinations settled the question, however. The Widal test was applied in 70 cases, and gave a positive result in 86.8 per cent. The total mortality was 48, or a ratio of 14.2 per cent., but according to the periods and changes in the treatment it has been steadily decreasing so that in the last period from 1899, during which the purely hydrotherapeutic treatment has been employed, the mortality of 164 cases thus treated is only 10.97 per cent. Excluding the four cases that died of pulmonary tuberculosis during or after the fever, it would be only 8.54 per cent.

67. **Intubation.**—Fischer finds from a study of a series of children intubated in the Willard Hospital and another series taken from private practice, that intubation produces no chronic cough; that the larynx was markedly tolerant, one of his cases having worn the tube for twenty-six days, and another twenty-five; that a proper feeding tube composed of rubber leaves no evidence of chronic inflammation directly traceable to it. There was no change in the contour of the thorax from intubation, although in the majority of the children in the first series as well as in the second there was decided rachitis, and 90 per cent. of the first series suffered from some form of chronic throat disease, such as tonsillar hypertrophy, adenoids or chronic pharyngitis, or all of them together. He thinks that it is safe to assume that these conditions invite the infection. If children's throats are in a normal condition the risk of infection is reduced to a minimum.

Maryland Medical Journal, Baltimore.

February.

70 Remarks on the Occasion of the Opening of the Tuberculosis Exposition in Baltimore, Jan. 25, 1904. William S. Thayer.
71 *The Statistical Laws of Tuberculosis. Frederick L. Hoffman.
72 *House Infection of Tuberculosis. Lawrence F. Flick.
73 *Bovine Tuberculosis a Factor in the Causation of Human Tuberculosis. Mazyck P. Ravenel.
74 *Some Observations on the Tuberculosis of Animals. D. E. Salmon.

71, 72, 73.—See abstract in The Journal of February 6, p. 391.

74. **Tuberculosis of Animals.**—This subject is taken up by Salmon, who specifies the different types of tubercle in different species of animals, and concludes that infection of the human subject from the lower animals is established by scientific facts. Almost all the cases with bacilli of the bovine type have been in children, which is noteworthy, and each of these forms a new center of infection. These bacilli may be the means of keeping up the disease in the human species. The human organism seems to have the power of attenuating tubercle bacilli and gradually making them less and less harmful, but this is counteracted by the infusion of pathogenic germs from animal sources.

Clinical Review, Chicago.

March.

75 *Hypochlorhydria Nervosa. William H. Washburn.
76 The Diagnosis of Febrile Diseases of Childhood: Typhoid, Relapsing Fever and Acute Miliary Tuberculosis. N. Filatov.

75. **Hypochlorhydria Nervosa.**—Washburn calls attention to and reports cases of a condition of decreased HCl in the gastric juice secretion from nervous causes. In all cases the striking features were the reduced amount of hydrochloric acid and the obtrusive nervous symptoms. The treatment indicated was the increasing of hydrochloric acid directly, and it was given in 15 to 20 drop doses, well diluted, half an hour after each meal and a second dose another half hour later, in each case relieving the symptoms remarkably. This treatment was supplemented by a tonic pill and treatment to keep the bowels in good order and general hygienic directions. In all cases the urine was found normal.

Iowa Medical Journal, Des Moines.

February 15.

77 Gumma of the Pons. C. A. Boice.
78 *A Burning Speech. H. W. Bailey.
79 Impression of the Rotunda. Harold Bailey.
80 Therapeutic Uses of the X-ray. M. G. Sloan.
81 Alarming Nasal Hemorrhage. H. Borst.
82 Surgical Treatment of Injuries to Spinal Cord. L. Schooler.
83 Proposed Sanatorium for Consumptives. W. B. La Force.

78. **Cremation.**—The dangers of earth burial are emphasized very strongly by Bailey, who advocates cremation. As an example of the dangers he mentions that of the tetanus germ being continuously in the ground, and the anthrax experience with buried animals. He asserts that the modern methods of burial in tight coffins are unsanitary as not favoring the resolution of the body to its original elements in the soil in time and as favoring the growth of malignant germs.

Medical Age, Detroit.

February 25.

84 The Jewish Dietary Laws from a Scientific Standpoint. N. E. Aronstam.
85 A Case of Exophthalmic Goiter. R. J. Ward.
86 Report of a Case of Severe Anemia Secondary to Puerperal Sepsis, Accompanied with Multiple Neuritis. Henry C. Sanders.

American Practitioner and News, Louisville.

February 1.

87 Some Phases of Bright's Disease. A. G. Blincoe.
88 Adenoid Anesthesia. Hugh N. Leavell.

Pennsylvania Medical Journal, Pittsburg.

February.

89 Address in Ophthalmology. Medical Society of the State of Pennsylvania. Edward H. Heckel.
90 *Is Registration and Disinfection a Successful Method of Combating Pulmonary Consumption? Thomas J. Mays.
91 The Prevention of Tuberc[illegible] Flick.
92 *The Specific Treatment of [illegible] P. Ravenel.
93 *Traumatism—*An Etiologic* [illegible] monalis. W. T. English.
94 Report *of* a Case of Elephantiasis. The Hypodermic Use of Camphor. J. I. Johnston.
95 *Some Random Notes on *Diseases* of the Rectum. Lewis H. Adler, Jr.
96 Obstetric Experiences of a Country Physician. H. C. McKinley.
97 Three Unusual Vesical Cases, with Operation. Ella B. Everitt.
98 *Inflammation of the Middle Ear in Diseases of Children. Theodore J. Elterich.

90, 92, 93.—See abstracts in The Journal, xli, p. 1039.

95. **Proctology.**—Adler pleads for the specialist. He thinks that much harm has been done by rough and unskilled handling in the treatment of anal and rectal troubles, and the quacks have profited accordingly. He calls attention to their methods, a knowledge of which is sometimes profitable to the physician, not for imitation, but for suggestions and warnings.

98.—See abstract in The Journal, xli, p. 1104.

St. Paul Medical Journal.

March.

99 *An Analysis of Thirty Cases of Appendicitis. L. F. Schmauss.
100 *Epileptic Automatism. Arthur Sweeney.
101 Some Orthopedic Suggestions to the General Practitioner; Chronic Osteitis—Its Diagnosis and Treatment. John Carpenter Schapps.
102 Pulmonary Tuberculosis, with Special Reference to "The Open Air Treatment." H. E. Stroud.
103 The Tuberculosis Question in Minnesota. H. Longstreet Taylor.
104 Scarlet Fever. Emery H. Bayley.

99. **Appendicitis.**—Schmauss considers that the operation for this condition requires more than the average skill, and not every physician can handle it safely. Complicated cases require the experienced surgeon. The large mortality from appendicitis, he thinks, is due to the "wait and see" policy and incomplete operations, faulty technic or after-treatment. More lives have been sacrificed by the policy of postponing than by other causes, and the interval operation has a higher mortality than it is credited with. In mild cases we should not wait for the interval operation. He thinks Ochsner's treatment is a great advance, but does not agree with him in that circumscribed abscess is comparatively harmless or that we should let perityphlitis go to abscess formation. In the diagnosis, leucocytosis ought to help us in determining whether there is an abscess. Frequently a single symptom may require operation, such as severe pain, rigidity, etc. The teaching to operate immediately or wait until the interval are both of them misleading; the local and general conditions of every case will have to be considered. He suggests the advisability of operation in all primary cases, but does not urge it, or even recommend it, excepting in cases of considerable severity or of necessity. He believes in the timely operation in all recurring cases, and immediate operation in all severe cases. While there is some risk from moving, still it is better to transport the patient to a place where he can be properly operated on than to leave him in unfavorable surroundings. Good medical treatment under unfavorable conditions for operation is better than poor surgical treatment. There is no telling what the next attack is going to be from the character of the previous one. Schmauss favors drainage in septic cases, and believes that the removal of the appendix is advisable. In conclusion he remarks on the defectiveness of statistics, and the need of more efficient clinical, anatomic and pathologic classification.

100. **Epileptic Automatism.**—Some interesting cases of double consciousness or epileptic automatism are reported by Sweeney, who considers that unconsciousness should be the criterion of epilepsy. The consciousness is affected in various degrees and for various periods of time, from the profund absence in motor epilepsy to the momentary hiatus of petit mal. All the functions of the brain may be involved or only a single one. The faculty which is constantly absent in epilepsy is that of conscious memory, while organic memory flourishes in nearly full perfection.

Mississippi Medical Record, Vicksburg.

March.

105 Some Eye Complications Seen in General Diseases. M. H. Bell.
106 Three Cases of Scarlatina. S. W. Johnston.
107 Coughs and Colds. William F. Waugh.

Louisville Monthly Journal of Medicine and Surgery.

March.

108 Intestinal Obstruction Due to Gallstones with a Report of a Case. W. O. Roberts.
108½ The Sarcomata. W. R. Blue.
109 Acromegalia, Report of Case. R. Alexander Bate.
110 Croupous Pneumonia. F. C. Simpson.
111 Headache. *D. L. Field.*

Toledo Medical and Surgical Reporter.

March.

112 Stricture of the Urethra. C. M. Harpster.
113 Intubation in Membranous Croup. John North.
114 A Few Remarks Concerning the Treatment of Menstrual Irregularities. M. Luther Spriggs.

Mobile Medical and Surgical Journal.

February.

115 Remarks on the Subject of Abortion. J. C. McLeod.
116 Pneumonia. P. J. Glass.
117 Carcinoma of the Uterus. J. B. Killebrew.
118 Appendicitis. H. T. Inge.

Southern California Practitioner, Los Angeles.

February.

119 Race Conservation. Rose Talbott Bullard.
120 The Acid Fast Bacilli. W. W. Roblee.
121 Finsen Rays. Albert Solland.
122 Clinical Lecture on Leprosy. Granville MacGowan.

Occidental Medical Times, San Francisco.

February.

123 Some Points on Nursing Ethics. George B. Somers.
124 Surgical Treatment of Chronic Bright's Disease. William R. Dorr.
125 Radium. D. A. Stapler.
126 Treatment of Chronic Nephritis; Report of a Unique Case. Wm. Himmelsbach.
127 Cerebral and Spinal Syphilis with Pronounced Acute Bulbar Paralysis. E. O. Jellinek.

Wisconsin Medical Journal, Milwaukee.

February.

128 Strangulated Hernia. Philip R. Fox.
129 Syphilis Hereditaria Tarda. Isaac A. Abt.
130 The Practice of Obstetrics. E. F. Fish.
131 Septal Deflections. Their Consequence and Treatment. F. T. Nye.
132 An Interesting Case of Nasal Deformity Corrected by the "Paraffin Method." Henry B. Hitz.

Medical and Surgical Monitor, Indianapolis.

February 15.

133 *Necessity for the Annual Systematic Examination of School Children's Eyes, Ears, Noses and Throats by School Teachers. Frank Allport.
134 Epistaxis and Its Treatment. L. D. Brose.
135 Physiologic and Psychologic Impotency. W. P. Ford.
136 Therapeutic Application of Benzosol (Guaiacol Benzoate). J. W. Wainwright.
137 Cataract Operation. Late Infection. Recovery. F. C. Heath.

133.—See The Journal of March 12, title 40, p. 703.

Southern Practitioner, Nashville.

March.

138 *Memorial Address on Dr. W. E. B. Davis. Richard Douglas.
139 Urinary Cysts. Wm. Litterer.

138.—This address has been published elsewhere. See The Journal of March 12, title 94, p. 739.

Texas Medical News, Austin.

February.

140 [illegible] Pettus.
141 [illegible] United States Government for the Neighbor Nations. J. W. Carhart.
143 [illegible] of Inflammation. O. L. Williams.
144 Report of a Case of Ectopic Pregnancy. Charles C. Barrell.

Medical Herald, St. Joseph, Mo.

February.

145 Stone in the Bladder and Hypertrophy of the Prostate Treated by Suprapubic Lithotomy and Prostatectomy. Reginald Harrison.
146 Surgical Cleanliness. Charles C. Miller.
147 Acute Intestinal Obstruction. O. Beverly Campbell.
148 Constipation. E. B. La Fevre.
149 Validol, Its Pharmacology and Therapeutics. M. Klonk.

Journal of the Kansas Medical Society, Topeka.

February.

150 What Is Insanity in Lower Animals? L. E. Sayre.
151 Syphilis. Mayer Shayer.
152 Carcinoma Ventriculi. George Howard Hoxie.

Medical Sentinel, Portland, Ore.

February.

153 Adenoids. Adolph Blitz.
154 Non-operative Treatment of Retrodeviations of the Uterus. Edna D. Timms.
155 Retrodeviations of the Uterus, Etiology. Mae H. Cardwell.
156 Symptoms of Retrodeviations. Amelia Ziegler.
157 Practical Therapeutics in Eye Diseases. (Continued.) Jno. D. Donovan.
158 Goiter in Washington, Thomas W. Musgrove.

Medical Summary, Philadelphia.

February.

159 Tonsillitis. G. O. Smith.
160 [illegible] Miller.
161 [illegible] A. Burnett.
162 [illegible] N. B. Shade.
163 [illegible] of Drugs and Food. C. W. Canan.
164 "Ur a-sol" and Its Uses. W. Harper Sloan.
165 *Neglect in Heart Disease.* C. E. Boynton.
166 Marriage and Celibacy. J. L. Wolfe.
167 Club foot. Frank R. Brunner.
168 Quackery and the Remedy.

Journal of the Association of Military Surgeons, Carlisle, Pa.

March.

169 On the Prevention of the Spread of Infectious Diseases on Board Ship. Henry G. Beyer.
170 The Expansion of the Hospital Corps in War. George E. Bushnell.
171 The United States Navy Transportation Board—1903 Model.
172 The Results of Two Seasons' Anti-malaria Work. Frederick F. Russell.
173 My First Aid to the Wounded. The Trip of the Steamer S. R. Spaulding Transporting Our Wounded Prisoners from City Point, Va., to Philadelphia, After the Seven Days Battles in 1862. Henry O. Marcy.
174 The Differential Diagnosis of Typhoid Fever in Its Earliest Stages. (Enno Sander Prize Essay, 1903). Frederick Smith.

FOREIGN.

Titles marked with an asterisk (*) are abstracted below. Clinical lectures, single case reports and trials of new drugs and artificial foods are omitted unless of exceptional general interest.

British Medical Journal, London.

February 27.

1 *A Criticism on the Value of Hammerschlag's Method in Clinical Estimations of the Specific Gravity of the Blood. E. P. Baumann.
2 **Remarks on Temperature.* M. S. Pembrey.
3 *The Causes and Treatment of Chronic Rheumatism. Ralph Stockman.
4 *A Case of Scurvy in an Infant Fed on "Humanized" Sterilized Milk. Henry Ashby.
5 *Some Notes on the Urine in Beri-beri. Herbert E. Durham.
6 Mycosis Fungoides, or Albert's Disease. John Reid.
7 Injuries to the Eyes in Relation to the Workmen's Compensation Act. J. Jameson Evans.
8 *On Removal of the Crystalline Lens in High Degrees of Myopia, as Illustrated in Sixty Cases. Simeon Snell.

1. **Specific Gravity of the Blood.**—Of the methods of determining the specific gravity of the blood, the pycnometer is the most exact. Some methods such as that with the Schmaltz capillary pycnometer are inexact or too laborious, but Hammerschlag's method, Baumann asserts, is well adapted to the clinical practice. Baumann has used this method with the chloroform-benzol mixture, and also has performed control experiments. He finds that Hammerschlag's method yields uniform excessive readings, the error amounting to .012 in excess of the normal. From the whole of his investigations he arrives at the following conclusions:

1. Provided the same hydrometer is used, Hammerschlag's method of estimating the specific gravity of the blood is clinically easily applied and yields, both in health and disease, results which are uniform and reliable. 2. An error is associated with the use of this method, which is always in the direction of an excess. The excess is, however, uniform and constant. 3. As was shown by A. G. Levy, the error may readily be obviated by the use of a specially standardized hydrometer, or by the application of the rough method of correction suggested by this observer.

2. **Temperature.**—The evolution theories imply the derivation of the warm-blooded from the cold-blooded animals and physiologic facts support this conclusion. Newly born pups, kittens and rabbits have a low temperature. The warm-blooded animals can be divided into two classes: those at birth blind, helpless, and in some cases naked and incapable of regulating their temperature, and those which are born in a condition of greater development, and can keep their body temperature at a fairly constant level. Birds are classified in the same way. What is true of some of the mammals is also true of the human species. It is only within narrow limitations that the new-born responds to changes in the temperature as does the adult. The range of temperature in healthy man and animals has not been adequately determined. The evidence shows that only the rectal temperature represents the true internal heat of the body. The temperature in the stream of urine is next in accuracy, though the method is limited in its application. The internal temperature of a healthy man shows a range from 96.8 to 100 F. These are the average for the rectum and urine, and do not include the full physiologic range. Muscular work causes a marked rise in the temperature, which may go up to 101 or 102 without causing pathologic effects. There is no evidence to show that a rise in the internal temperature is injurious, in fact the evidence seems to be increasing that it may be beneficial. Pembrey holds that heat stroke and heat exhaustion are not due to germs, but to the disturbance of the nervous control of temperature brought about in most cases by muscular exercise in unsuitable clothes and in hot surroundings laden with moisture. In the case of a

phthisical patient, the rise of temperature after exercise is not of as much diagnostic value as the reaction after exercise and the temperature during rest. It is probable that many patients with slightly elevated temperature have been enfeebled by enforced rest in bed. In the healthy man the control of temperature is the same, regardless of the external conditions, provided normal metabolism can be kept up, and it correspondingly increases in cold temperatures. The idea that we should ward off colds by guarding against low temperature is a fallacy; colds in all probability are infectious diseases. Alcohol and anesthetics both lower the temperature; the lowest temperature recorded in a man who has recovered appeared to be in a drunkard who had been exposed to the cold. Anesthesia is a decided lowerer of temperature, and it is probably often too deep and prolonged. Pain may be a natural safeguard; it brings about the proper reactions to sensation which the anesthetic suppresses. A drug that will so profoundly disturb the nervous control of combustion can not be harmless, and the author suggests that many deaths are due more to the anesthetic than to the operation. The limits of bodily temperature compatible with life, so far as have been observed in pathologic conditions, seem to range from about 75.2 to 114.8 F. Higher and lower temperatures have been observed in moribund cases, but not where recovery took place; 114.8 appears to be the highest temperature endured by any patient who recovered, and then it was continued for only a very short time.

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14 Cholecystotomy for Acute Post-enteric Infection of the Bile Channels; Recovery; Demonstration of the Presence of the Bacillus Typhosus. J. Lynn Thomas.
15 Some Impressions of Salsomaggiore and Its Baths. W. W. Baldwin.
16 A Case of Gangrene of the Right Foot Occurring in the Newly Born. Digby Cotes-Preedy.

9. **Muscular Structures of the Heart.**—Keith points out that the ordinary explanations of the cause of the lack of caval regurgitation from the auricles are anatomically insufficient; he explains the condition by reference to comparative anatomy. He finds that in the newborn child the condition is very similar to that of a reptile's heart. There are strong membranous valves which prevent regurgitation. In the adult the valves are reduced and muscular bundles take their place to some extent, but still leaving a chance for regurgitation with an engorged auricle. The article is illustrated by diagrams, which aid the explanation of how the auricular mechanism is constructed and how it acts. He discusses the conditions in pericarditis with adhesions, etc., as affecting the circulation and the heart's functions.

10. **Head Injuries.**—English's second lecture discusses the consequences of head injuries, aphasia, agraphia and loss of arithmetical and musical faculty, traumatic somnambulism, lesions of the cranial nerves, facial paralysis, deafness, hemiplegia, etc. The diagnosis has certain difficulties. It is not always possible to show that what is attributed to head injury is really due to it. The possibility of malingering and exaggeration must always be kept in mind. The prognosis should always be guarded. For general treatment he insists on physical and mental rest as of first importance. The patient, however, should not be isolated, as this may do more harm than good. He should be under the care of a medical man who will see that the details of treatment are properly carried out, and he should not be sent away on a long sea voyage or to travel if because of no other reason than of the inability to exercise proper supervision. With mental quiet there should be continued high feeding and general massage. For drugs he condemns the bromides. They are useful in other conditions, but not in this. He sums up the general conclusions in regard to the treatment as follows:

> 1. In rather more than half of the cases cure may be brought about by medical measures; prolonged mental rest and the proper administration of mercury are the essential points. 2. In a few of the cases the symptoms are mainly due to chronic osteosclerosis, and such cases may be almost certainly cured by trephining. 3. In the remainder of the cases the symptoms are more persistent and do not yield to general measures or to the removal of thickened bone only. I believe that in such cases these symptoms are the reflex results of lesions or irritations of the dura mater; and if the injury has involved the vault of the skull cure can be effected promptly by excision of the thickened or adherent dura mater and removal of any other source of irritation which may be present.

He insists on the free opening in surgical cases and the operation in two stages in case of extensive brain lesions, as lessening shock and mortality.

12. **Rheumatic Infection.**—The different forms of complications of rheumatisms are discussed by Dally, who suggests that in many cases the organism persists in the infected tissue after all obvious inflammatory signs and symptoms have disappeared. It exists in comparatively, but not absolutely, harmless conditions, and is capable of being called into action. His belief is based on the cardiac disease occurring at varying periods after rheumatism, the recurrence of rheumatic affections themselves, the prolonged course of the chorea and endopericarditis in childhood. He summarizes that a certain similarity of effect, whatever tissue is infected, is apparent, and the capability of such infection to inflict any degree of damage on the tissues attacked within certain limits and to persist in the infected tissues, is also supported by observation.

13. **Pleurisy.**—Dally's conclusions in regard to the radioscopic shadow in pleurisy are that the level of the fluid changes with the position of the patient unless the quality of the fluid is great or is encysted by adhesions; that a pleuritic effusion yields a shadow of greater density than a serofibrinous effusion; that the shadow is homogeneous, and in the case of serous effusion gradually increases in density from above downward; that however far the heart is displaced to the right, in most cases little alteration takes place in the position of the apex relative to the base; that, other conditions being equal, the heart is displaced more when the effusion is left-sided; and that a somewhat triangular shadow, not normally visible, above and continuous with the shadow of the heart and pericardium, is cast by the mediastinum, displaced by lateral pressure toward the left side. In the majority of cases he thinks the results of radioscopic examination correspond with those of percussion. Where they differ the explanation may be as follows: The lung is liable to become adherent by a portion of its surface to the chest wall. The level of the fluid being represented by a straight line, the lung dipping into it may be represented by a curve, with its convexity below. The thin layer of fluid and the air-containing lung, opposite to where the lung dips into the fluid, may be seen as a lighter and more transradiant area, convex below, whereas at the sides where only fluid is present and no lung the shadow will be much more dense. In all the cases he has seen the serous effusion throws a light shadow usually with a well-defined curved upper margin. A purulent effusion throws a dense or even opaque uniform shadow. In the former case the rib outlines are not obliterated; in the latter they generally are. Pleural effusion can be distinguished, unless too great in amount, from thickening of the pleura by the changes of the level of the upper margin on movement, hence the *x*-rays may frequently show whether the difficulty is present in the chest or not, and from the density of the shadow give an idea as to the exudate.

Bulletin de l'Académie de Médecine, Paris.

17 (LXVIII, No. 6.) Remarques relatives au diagnostic de l'actinomycose. Le Dentu. Epithelioma of jaw simulating actinomycosis.
18 (No. 7.) Sur les types de l'inflammation dans les épithéliomes. Cornil.

Presse Médicale, Paris.

19 (I, No. 10.) *Les rayons X et la thérapeutique du cancer. T. Tuffier.
20 *Le dosage en radiotherapie. Procédés et instruments. A. Béclère.
21 *Le radium.
22 (No. 11.) de la creosote. Gilbert.
23 *Pneumotypl Ardin-Delteil and Rimbaud.
24 Comment il faut administrer l'antipyrine. A. Martinet.
25 (No. 12.) *Le spéculum. F. Jayle.
26 Le diabète familial. A. Martinet.
27 (No. 13.) Propriétés dynamiques des humeurs. La cryoscopie. J. Winter.
28 (No. 14.) Traitement abortif des furoncles par une solution concentrée d'iode dans l'acétone. Gallois and Courcoux.
29 Le cautère et les états dits arthritiques. L. Brocq.
30 *Sécrétine. Médication dite duodénale Stimulation des fonctions sécrétiniques chez l'homme. E. Enriquez.
31 Les injections vaginales et l'acide sulfureux. E. Arbinet.

19. **X-Ray Treatment of Cancer.**—Tuffier argues that different kinds of cancers present different kinds of growth, particularly when in different parts of the body. This varying severity of the growth renders a *varying* scale of treatment necessary. What is effectual for one kind or in one location is powerless against another kind or the same kind elsewhere. He regards cancer as a disease with local manifestations, but usually under the dependence of a general condition whose nature is still unknown. A scrap of cancer grafted on a subject already invaded by cancer rapidly entails a new cancer growth, but not on a non-cancerous subject. For instance, he removed an epithelioma from the forearm of a woman, and closed the defect with a "bridge flap" of healthy skin from the abdomen. Seven weeks later she returned with an epithelioma in the abdomen at the point where the flap had been taken. Refusing an operation, she succumbed two months later to cancerous infiltration of the wall of the abdomen and thorax. In regard to serum treatment of cancer, his experience has shown that the first injections of almost any serum are followed by marked improvement, but that this soon subsides. His impression is that the serum rather accelerates the course of the affection on the whole. The serum induces a phagocytosis which temporarily arrests the tumor, but as soon as the organism has thus used up its reserves, the neoplasm continues its course unmolested. Change to another kind of serum and to a third and fourth produces the same kind of a transient improvement, shorter in each case, but the organism is only rendered less resistant by these demands on it. As soon as their effect subsides, the malignant disease

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The fluorescing screen is a sheet of very thin celluloid, coated with calcium or zinc sulphid in the center, the round patch about 1 cm. in diameter, the sulphid spread so thin that print can be read through it. The screen is "excited" by being held near a source of ultraviolet rays, and the fluorescent light is then allowed to die away until it has reached the steady stage. If a contracting muscle be then placed under the screen, its light will be seen to become perceptibly brighter. One of the most convincing tests is to place a feebly fluorescing screen on the floor by the bare foot in a dark room. It is almost impossible to make out the screen under these circumstances, but if it is placed on the toes, and they are worked, the screen glows so that it can be readily seen by the standing subject. After simply placing a speck of recently excited calcium sulphid on a thick book a distinct increase in the glow is obvious when the muscles of the hand or arm are contracted underneath. We notice in this connection that Mendeleef, the great Russian chemist, the discoverer of the "periodic law" of chemical elements, has recently published his belief that the ether is a highly penetrative, elastic gas, a real chemical entity, and that it is responsible for the phenomena of radio-activity.—Ed.]

37. **Nerve Stretching in Raynaud's Disease.**—De Bovis gives the particulars of 2 cases of symmetrical gangrene of the hands, which were practically cured by stretching the cubital and median nerves at the wrist. He advises careful hygiene of the parts and general tonic treatment, and adds that the stretching of the nerves does not radically cure the affection, but improved it to such an extent in his cases that the measure should certainly be given a trial in every case. It has a favorable influence on the dystrophy, but should be supplemented by frictions and local baths, etc., to promote the circulation in the parts, with removal of the gangrenous patches. The latter is the only measure that will certainly relieve the pains in all cases. The disease is more than a mere disturbance in the trophic innervation, and, in his cases, the cure of the trophic lesions was accompanied by no more than mere improvement in the vasomotor disturbances. The hands are still somewhat cold and subcyanotic.

38. **Mortality in European Armies.**—Dolmatoff states that the mortality from typhoid fever in the Russian army during the years 1889-1900 ranged from 1.02 to 1.91 per 1,000 (French army, .96 to 1.88 per 1,000). The pneumonia mortality was below that of the French army, but a trifle above that of the German, being .49 to .99 per 1,000. The dysentery mortality, .12 to .2 per 1,000; the French, .1 to .33, and German, .01 and .02 per 1,000. The total mortality among the privates was 6.4 per 1,000, while in the French army it was 5.9 and in the German, 2.7 per 1,000. The German army leads in the number of suicides, ranging from .33 to .64, followed by the French army, with .19 and .31, and the Russian with only .11 and .17 per 1,000.

39. **Role of Animals in Propagation of Disease.**—Bard thinks that this factor in the transmission of microbian disease is being rather overestimated at present.

40. **Phlegmonous Forms of Cancer.**—Lejars dwells on the "hints" which may serve for the differentiation of the abscesses which are the initial stage of malignant disease and not the mere phlegmons which they appear to be. These suppurating cancers, the phlegmonous varieties, generally display peculiar malignancy, with rapid diffusion, offering little prospects for effectual surgical intervention. Differentiation in the earliest stages, although difficult, is not impossible in most cases. Careful examination will reveal some suggestive features, the "exceptional" hardness of the surrounding tissues, the large base of the lesion, deep and adherent, the absence of decided limits, and the special, purplish color of the skin, while the general health also is more affected than is usual with an ordinary suppurative process. The blood findings are not characteristic.

Deutsche medicinische Wochenschrift, Berlin and Leipsic.

45 (XXX, No. 7.) *Reciprocal Relations Between Skin and Kidney Activity. E. Bendix.—Ueber Wechselbeziehung zwischen Haut- und Nierenthätigkeit.
46 Das Dysenterie-Toxin (auf natürlichen Weg gewonnen). L. Rosenthal (Moscow). Obtained by filtering bouillon cultures.
47 Zur Serum-Therapie des Tetan
48 *Poisoning with Mustard. W.
49 *Aseptic Catheters. B. Goldt
Aufbewahrung weicher und halbweicher Katheter.
50 Disappearance of Liver Dullness in Consequence of Superposition of Large Intestine. R. Hoffmann.—Ueber das Verschwinden der Leberdämpfung infolge von Dickdarmüberlagerung.
51 *Ueber Alkohol-Verbände (dressings). Wohl.
52 Diaphragm for X Rays. E. Bille (Dresden).—Eine Irisblende für Röntgenzwecke.
53 Die Behandlung des Puerperal-Fiebers (aus den Jahren 1901, 1902 und 1903). R. Müllerheim.
54 *Die Pest unter den Ratten des Dampfers "Cordova." Nocht (Hamburg).
55 (No. 8.) *Sensibilizing Phototherapy. A. Neisser and Halberstaedter.—Mitteilungen über Lichtbehandlung nach Dreyer.
56 *Zur Bekämpfung der Tuberkulose. C. Flügge (Breslau).
57 *Ueber den diagnostischen Wert der Tuberkulin-Reaktion. R. Schlüter (Rostock).
58 *Ueber Behandlung einer Pylorus-Stenose mit Thiosinamin. A. Hartz (Carlsruhe).
59 *Light and Color Tests of "Expression-Movements." Sommer (Giessen).—Darstellung von Ausdrucksbewegungen in Licht und Farbenerscheinungen.

45. **Value of Diaphoretic Treatment in Kidney Affections.**—Bendix epitomizes the results of considerable experimental research under Ebstein's direction in the statement that he found it impossible to influence the normal freezing-point of the blood by even the most energetic sweating procedures. He was unable to induce a thickening of the blood by withdrawal of water, nor, by the elimination through the sweat of substances dissolved in it, to reduce the molecular concentration of the blood. This applies to both the normal animals and those with kidney affections. In the clinic he conducted similar research on patients who had to be treated by diaphoresis and venesection at the same time—mostly cases of kidney disease. The sweating was induced with the Quincke-Dubois hot-air apparatus, and the weight of the subjects diminished by 500 to 1,500 gm. under it. The sweat was accumulated on a rubber sheet. The results harmonized with those obtained with the animals. When the freezing-point was normal—.56 C.—the most energetic sweating procedures had no influence on it. On the other hand, when the freezing-point of the blood was pathologically low, as in chronic nephritis, the sweats raised the freezing-point almost to the normal standard. This result is the more remarkable, as the sweat is usually hypotonic in regard to the blood, and the result naturally to be expected would be a thickening instead of a dilution. The findings suggest the probability that the body must always have abundant reserve supplies of water on hand somewhere, which serve at need to wash out the solid substances. He found that more solid substances were eliminated in the sweat under these circumstances than when the freezing-point remained at a constant level. This was particularly noticeable in a case of acute uremia. He does not attribute much importance to the variations in the freezing-point of the sweat, but these experiences emphasize the value of energetic sweating procedures in case of insufficiency of the kidneys—manifested in a pathologically lower freezing-point of the blood—as a means of restoring the freezing-point of the blood approximately to normal. The character of the kidney trouble does not seem to affect this result. He has also derived the impression from these researches—although unable to scientifically prove it—that ingested iodin is also eliminated in the sweat, subject to individual variations, both in normal and nephritic subjects.

48. **Intoxication from Mustard.**—Kolbe reports a case of intoxication from the use of mustard seeds taken in self-treatment for a stomach trouble. The symptoms were those of serious narcotic poisoning, contrary to what has been previously recorded from this cause. Treatment should consist in artificial respiration, then lavage of the stomach, stimulants and eventually a milk diet. Strychnin has experimentally proved an antidote for mustard poisoning, but whether to prefer it to atropin—the symptomatic remedy for the spasm of the diaphragm—is still an open question. The diagnosis in dubious cases is aided by the odor of the expired air and of the urine, distillation of the urine and stomach content with

water to obtain the ethereal oil of mustard, and mustard seeds in the stools. The patient recovered after a few days of serious illness, but died a year or so later after an operation for stricture of the ascending colon, which was found gangrenous. Otherwise the organs were normal. The case suggests the danger of mustard for internal application. It is used currently in the household as a harmless remedy and emetic, but Posner, as long ago as 1864, warned that even a tablespoonful in a glass of water is liable to set up a fatal gastritis on account of the content in ethereal oil of mustard. Kolbe thinks that the effect on the medulla oblongata is even more to be feared than its local action in the stomach.

49. **To Keep Catheters Aseptic.**—Goldberg uses a glass ring with a hooked handle to suspend the catheter in a glass test tube, plugged with cotton. Another way is to use a test tube that has a constriction at the base of the neck. This constriction holds the flaring end of the catheter or a glass ring slipped over the catheter. By the use of these tubes, with a constriction at the base of the neck, several bougies or catheters can be kept in a single bottle, all held by the flaring upper end. He sterilizes the whole with steam, and then puts the catheters in the tube, which he fills with a 1 to 3 per cent. solution of boric acid to 1 or 2 cm. above the catheters. He then pours on the top of the fluid a layer about 1 cm. thick of sterile olive oil. Patients should be instructed to have a separate tube for each catheter, but physicians can keep several in one tube. The catheter is taken out by inverting the tube.

51. **Alcohol Compresses.**—Wohl confirms the prompt benefit derived in suppurative processes from the application of compresses soaked in 95 per cent. alcohol. It causes the rapid retrogression of an incipient process and checks the progress of advanced ones without extensive breaking down. It relieves the pain also better than any other moist compress. He describes 3 illustrative cases out of an extensive experience. One patient was a young woman nursing her first infant. Both breasts were very painful, red and hard, temperature 41 C., and pulse 140-150. The day after the alcohol was applied the temperature was normal, pulse 80, and in three days the child was nursing normally.

54. **Modern Methods of Disinfecting a Plague Ship.**—Nocht of Hamburg gives the details of the disinfection of the steamer *Cordova*, which arrived from Brazil Dec. 25, 1903. Every ship arriving at Hamburg is searched for dead rats by the sanitary authorities. During the last year they were found in 36 ships and plague bacilli were found twice. When the *Cordova* began to unload, the inspectors found at noon seven dead rats. By 3 o'clock the ship was notified that the findings were suspicious, and it was ordered to leave the quay and anchor in the open water. The Nocht-Giemsa disinfecting apparatus was installed the same day, and the hold and living rooms were filled with the gas generated. The next morning fresh air was pumped into the hold by the same apparatus, and the unloading of the ship on lighters allowed to proceed. The cargo consisted of sacks of coffee and bran, and as each sack was brought up it was inspected by the sanitary officer. All on which there were signs of rat manure or gnawing were loaded into a separate lighter, which was isolated for a period of two weeks, with no possibility of contamination from other rats, after which the unloading was allowed to proceed without further restrictions. None of the rest of the cargo was interfered with, and it was unloaded and stored in the warehouses as usual. No plague rats were found anywhere in the ship except in the compartment where the first had been discovered, and all in this compartment had died before the gas disinfection. The gas killed 139 rats in all, including a number of nests of young rats in inaccessible crevices. The crew and others working on the ship were required to wear an outer suit while at work, with gloves, etc., and on leaving work to clean their hands and shoes with kresol soap. They were examined by a physician once a day, and for five days after the unloading of the ship was completed. Otherwise they were not interfered with. After the ship had been unloaded it was disinfected anew with lime in the hold and the living rooms with formaldehyd. All the sweepings of the ship were burned, as is compulsory for all ships in Hamburg harbor. In five days from the finding of the dead rats, the sanitary officers withdrew and the ship sailed in two days with a new cargo. A few sacks had been carried into the warehouse before the first rats were found, and they were isolated by covering them with tarpaulins and building a high board partition around them, shutting up in it a couple of trained rat dogs. After the two weeks' period was past the partition was removed and the sacks not further interfered with. The purpose of these measures was to keep the rats in the warehouse from access to the sacks during the period of isolation. No case of sickness developed among the crew or those having anything to do with the ship.

55. **Dreyer's Sensibilizing Modification of Light Treatment.**—Dreyer's important contribution to phototherapy was described in The Journal recently, page 469. Neisser and Halberstaedter have been testing it at the Breslau dermatologic clinic, and their experience entirely corroborates the great value of this method of preparing the tissues for the action of the therapeutic light rays. Attempts to explain by fluorescence and absorption the mechanism of this sensibilizing action all fail, but with it the reaction in human skin is many times deeper with a very much shorter exposure. The Finsen light treatment never reaches the depths now possible with this modification. A further advantage is that the sensibilizing fluid can be injected directly at the deep point where the therapeutic action is desired, thus sparing the superficial tissues from any intensification of the light action where it is not needed. Several stains were tried—eosin, cyanin, etc.—but erythrosin surpasses them all in its effects and also in its harmlessness. Applied in the clinic in 25 cases of lupus, spina ventosa, scrofuloderma, tuberculous lymph glands and cutaneous cancer, the strength of the reaction and its course show that the light treatment thus modified is much more energetic and effectual than ordinary Finsen light treatment. A 1 per cent. or per 1,000 solution of erythrosin in .85 per cent. salt solution was injected according to the Schleich infiltration technic as deep as the effect was desired. Two to five hours later the Finsen light was applied for fifteen to twenty minutes, or longer in case of carcinoma.

56. **Flugge's Reply to Behring.**—Flügge does not regard any of Behring's recent statements in regard to the origin and prophylaxis of tuberculosis as important except those bearing on the immunization of cattle. Even this Flügge considers a subordinate factor for the prevention of tuberculosis in man. Sufficient time has not yet elapsed to determine whether the cattle immunized by this method retain their immunity permanently.

57. **The Tuberculin Test.**—Schlüter tabulates the details of 30 cases in which the tuberculin test was applied with positive results out of a total 100. They prove that a reaction to a small dose occurs almost exclusively in subjects with an active tuberculous process, while those with a latent, inactive process and those entirely exempt do not react except in very exceptional cases. He starts with 2 mg. of Koch's old tuberculin and never surpasses 5 mg. These small doses can never do harm, he thinks.

58. **Thiosinamin in Stenosis of Pylorus.**—An intelligent man of 56 had suffered for thirteen years from gastric disturbances, due to stenosis of the pylorus. After failure of all other means of relief an operation was contemplated, but owing to the unwillingness of the family it was postponed from time to time. Attention had just then been called to thiosinamin, and it was tried as the last medical resource. One-half a Pravaz syringeful of a 15 per cent. alcoholic solution was injected into the back, and the patient's condition began rapidly to improve. In two months he was freed from the most distressing symptoms, and in another month—after the thirteenth injection—he was eating ordinary food at the family table. At date of writing he has received twenty-three injections during the five months, and considers himself cured. All the details of the case are recorded; they show that the reaction to the drug is not severe; headache and depression

were noticed only once or twice, and only after the first injections. The stools became regular soon after they were commenced, and the patient increased in weight.

59. **Representation of "Expression-Movements."**—Sommer gives illustrations of an instrument which he has devised for tests in experimental psychology. The hand placed on a floating tablet transmits its threetold movements by wires to three electric lights of different colors, the variations in the shade or intensity of the light corresponding to the movements of the hand. He has thus been able to study the movements in various nervous affections, and proposes to describe his experiences in detail at the approaching congress of experimental psychology at Giessen.

Monatsschrift f. Geb. und Gynäkologie, Berlin.

Last indexed page 565.

60 (XVIII, No. 4.) Stretching of Lower Segment of Uterus with Intact Fetal Membranes. S. Goldner.—Dehnung des unteren Uterussegments bei stehender Blase.
61 Die Bossi'sche Methode bei Aborten und bei Geburten nach Verstreichen der Portio vaginalis. E. Schürmann.
62 Secondary Suture of Perineum in Childbed. D. Abuladse (Kiev).—Ueber sekundäre Dammnaht im Wochenbett.
63 Fall von Aplasie des Uterus und der Vagina. A. Hofmann.
64 *Relations Between Hysteria and Female Sexual Organs. G. v. Voss (St. Petersburg).—Beziehungen der Hysterie zu den weiblichen Sexualorganen.
65 *Zur Hyperemesis gravidarum. P. Jung.
66 Zur Technik des Bauchschnittes (of abdominal incision). Muller.
67 (No. 5.) *Illumination of Abdominal Cavity. D. v. Ott (St. [illegible] [illegible] nittelbare Beleuchtung der Bauch- [illegible] des Dickdarms und Uterus zu diagnos- [illegible] Zwecken.
68 *Ueber die Lymph-Organe der weiblichen Genitalien und ihre Veränderungen bei Carcinoma uteri. Kroemer.
69 Aktinomykose der Ovarien. H. Geldner.
70 Ueber einen durch ein submucöses Myom komplizierten Geburtsfall. Ekstein.
71 Causes of Rise in Blood Pressure During Labor. O. O. Fellner.—Ueber die Ursachen der Blutdrucksteigerung in den Wehen.
72 Uterine Cancer and Pregnancy. E. G. Orthmann.—Gebärmutterkrebs und Schwangerschaft; nebst Beitrag zur Lehre vom vaginalen Kaiserschnitt.
73 Zur Tuberkulose der Eierstocksgeschwülste (of ovarian tumors). L. Wechsberg (Vienna). One case.
74 History of Winterhalter's Ovarian Ganglion. V. v. Ebner.—Zur Geschichte des W'schen Ovarialganglions.
75 (No. 6.) Indikation und Technik des Steisshakens (buttocks hook). W. Ponfick.
76 Ueber Geburten bei Steisstumoren (delivery in cases of buttocks tumor). Uthmöller.
77 Zur Hände Desinfektion. H. Fueth and Mohaupt (Zweifel's clinic, Leipsic).
78 Dilute Soda for Softening Hands Before Sterilizing. H. Fueth.—Zur Verwendung verdünnter Natronlauge zwecks Aufweichung der Hände vor der Keimentnahme.
79 *Zur Aetiologie und Pathogenese der Dysmenorrhoe. V. Schultz.
80 Coitus-Verletzung (injury). O. Frankl.

64. **Relations Between Hysteria and Female Genital Organs.**—Voss does not believe that hysteria develops any more frequently on a basis of affections of the genital than of other organs. Most of the neuroses observed in gynecology are not typical hysteria, but belong rather to the group of degenerative hysteriform tendencies. Inherited predisposition and psychic contagion are important evidence in favor of a nervous origin. Further study is needed to determine which affections in the genital sphere do not usually entail sequelæ for the nervous system. He warns that technically simple gynecologic operations, even the narcosis alone, may be of great importance in this respect and prove disastrous for the nervous system. Diversion of the attention is better for nervous disturbances. Local interventions have a tendency to aggravate the subjective symptoms on a nervous basis, or recurrences are liable after a brief period of improvement.

65. **Hyperemesis Gravidarum.**—Jung recommends strict bed rest and nothing but iced milk per os. If the vomiting continues, rectal feeding only, returning tentatively after a few days to mouth feeding. The failures of this mode of treatment are usually due to the patient's surreptitiously obtaining food. The pregnancy should not be interrupted until all other measures have been tried, including the removal of the patient to a hospital.

67. **Direct Illumination of Abdominal Cavity.**—Ott's retractors supplied with electric lights have already been described in these columns (see also page 680). He gives illustrations of them here and his method of using them, the patient in an exaggerated Trendelenburg position to cause the intestines to slide down away from the viscera being examined. He is particularly pleased with his forehead lamp and reflector which focuses a flood of light on the parts he is inspecting, especially valuable during a laparotomy, supplemented by as many small lamps introduced inside the abdomen as may be needed. The findings are shown in a number of illustrations.

68. **Lymphatics and Uterine Cancer.**—Kroemer's study of cadavers of young and old subjects has demonstrated that the number of communications between the lymphatics in the uterine region is larger than hitherto taught. Consequently he thinks abdominal ablation with removal of all suspicious glands is indicated for early cases of sarcoma or endothelioma in the uterus, and also for similar carcinomata in young or pregnant women. Also for rapidly disintegrating cases of cancer of the cervix developing by infiltration. It is also indicated in advanced cases of cancer of the portio or corpus uteri. Vaginal total extirpation will answer for incipient pure portio and corpus cancer without complications, proceeding by a liberal vaginoperineal incision and resection of parametrium. Advanced cases of the soft cancers in the first group are no longer operable. Even the most exhaustive search for infected glands will be futile. He urges an exploratory excision and microscopic examination as an indispensable preliminary to operating. In statistics those cases in which the glands were examined should be classed apart from others. He further urges that gynecologists should pay more attention to the postmortem findings. In 80 cases examined he found the parametrium infected in 44, and in half of these the glands were cancerous; in the others they were apparently free from cancerous infection. Certain kinds of cancers displayed a greater tendency than others to glandular involvement. The most malignant in this respect were always the polymorphous-celled tumors of the cervix, both the sarcoma and endothelioma class and the adenocarcinomata—all presenting in common a marked tendency to a soft, infiltrating growth.

79. **Dysmenorrhea.**—Schultz remarks that there can be no doubt that the dysmenorrhea in certain cases in girls and young nulliparæ is due to defective structural development of the infantile connective tissue in the outer layers of the wall of the uterus. After failure of all other measures it may be advisable to slit this outer capsule, from outside inward, as a last resort in certain individual cases. In palliative treatment vasoconstricting measures will be found useful, expelling the blood from the congested vessels of the parts.

Münchener medicinische Wochenschrift, Munich.

81 (LI, No. 6.) *Improved Apparatus for Inducing Hyperemia. A. Bier (Bonn).—Ueber einige Verbesserungen hyperämisierender Apparate.
82 *Ueber oesophagoskopische Diagnostik. H. Starck (Heidelberg).
83 *Retention Stomach Tube for Stricture of the *Esophagus*. G. W. Schiele (Naumberg a. Saale).—Dauermagensonde bei Striktur der Speiseröhre.
84 Komplikation der Gravidität mit Perityphlitis. A. Labhardt.
85 The Speech in Epileptic Confusional States. Raecke.—Das Verhalten der Sprache in epileptischen Verwirrtheitszuständen.
86 *Can Glassblowing Induce Emphysema? Prettin.—Kann durch Glasblähen ein Lungen-Emphysem erzeugt werden?
87 Ueber Multiplizität der Taenia saginata. E. Reiss (Heidelberg).
88 Ein neuer Aspirations- und Infusions-Apparat. Koeppel.
89 Zur modernen Lehre der Eklampsie. W. Weichardt.
90 *Artificially Induced Anemia. B. Müller (Hamburg).—Ueber künstliche *Anemie*. (Commenced in No. 5.)
91 (No. 7.) *Experiences with Biologic Blood Test. G. Hauser.—Ueber einige Erfahrungen bei Anwendung der serodiagnostischen Methode für gerichtliche Blutuntersuchungen.
92 *Simple Method for Differentiating Human and Animal Blood. H. Marx and E. Ehrnrooth.—Eine einfache Methode zur forensischen Unterscheidung von Menschen- und Säugetierblut.
93 *Zur Prophylaxe der Ophthalmoblennorrhoea neonatorum. Dauber.
94 *Anatomical Conditions for Healing of Apical Tuberculosis. A. Hofmann.—Welchen Antheil an der Ausheilung der tuberkulösen Lungenspitzenerkrankung nehmen die Gelenkbildung des Knorpels der ersten Rippe und die gelockerte Verbindung zwischen Manubrium und Corpus sterni?
95 Improved Tests of Chemical Disinfection. G. Bellei.—Verbesserte Methode zur Bestimmung des Wertes von chem. Desinfektion.
96 Ueber die Hämolysine des normalen Blut Serums. H. Sachs.
97 Glyzerin und Lymphe. E. Levy.

98 Fall von Pneumokokken-Pyocele. A. Müller.
99 Fall von Pyämie nach Operation eines Nasen-Rachen-Polypen. Manhenke.
100 Progress in Medicine Entails Deterioration of the Race. E. Bleuler.—Führen die Fortschritte der Medizin zur Entartung der Rasse?

81. **Improved Apparatus for Inducing Hyperemia.**—Bier's illustrations give a clear idea of the various apparatus he describes. He has been much pleased with the success of one style with which he is able to produce a vacuum around a stiff joint and thus induce a curative hyperemia. The arm or leg is placed in a wide, stout glass cylinder, a connecting rubber cuff fitting airtight around the limb above and below the glass cylinder. A contrivance like a bicycle pump aspirates the air from the interior and the part reddens, sweats and feels warm in the rarefied air. The apparatus is arranged so that the stiff joint can be subjected within it to passive and active movements, and it has proved very effectual. Its principal field is in the cure of traumatic ankylosis of the joints. His hot-air apparatus has been modified, as shown in an illustration, for use in trigeminal neuralgia. The tip of the tube has a wooden cover to prevent burning the hand, and the other end of the tube is finished with a ball and socket joint which allows the tube to be moved sufficiently to direct the stream on any part of the face. Gas or an alcohol lamp supplies the heat. The mistake is frequently made in applying superheated air that the box for the air is too small, and the heat is applied at one point instead of being diffused through the space containing the limb. He has frequently found superheated air effectual in improving cases of chronic articular rheumatism after the entire failure of electric light baths. Passive hyperemia is also liable to prove very effective in these cases. The finest results he has yet attained were with passive hyperemia in the cases of three children with very severe chronic rheumatism. He applies the constricting bandage for this purpose for twelve to twenty-two hours a day, massaging away, once or twice during the day, the edema which accumulates and is beneficial in this affection, but not in all others. The passive hyperemia is peculiarly useful for the chronic cases with a tendency to ankylosis or acute exacerbations. In the more chronic cases, passive hyperemia is less effectual than the active, as a rule, but much can be accomplished with it, although the results have not realized all his anticipations in this respect.

82. **Esophagoscopy.**—Starck states that he has used the esophagoscope one or more times on 46 patients presenting some lesion in the esophagus. Among other facts thus learned by this direct inspection is that the so-called neuroses are not so frequent as hitherto assumed. Some lesion is always found to explain them. The aspect of a diverticulum can never be mistaken or forgotten.

83. **Retention Stomach Tube for Stricture of Esophagus.**—Schiele has restored a patient to comparative health by rendering the esophagus permeable when it had been almost entirely obstructed by a carcinomatous stricture. He accomplished this by introducing into the lower esophagus a drainage tube, about 30 cm. long, with a dozen large openings. It was inserted with a guide tied to the tube with catgut at the lower end. The catgut soon dissolved in the stomach, allowing the guide to be withdrawn. A string passes through one of the holes in the upper end of the tube, and is tied around one of the teeth. With this string the tube is drawn out and a fresh one introduced every fifth day or thereabouts. The patient is a man who had been reduced to a skeleton before this intervention, the esophagus not allowing the passage of more than a glass of fluid during the entire twenty-four hours. He is now able to eat any quantity of soft eggs, thick soups, etc., and experiences no discomfort from his tube. If by any mischance it should escape and slip down into the stomach, Schiele does not think that this would be much of a calamity under the circumstances.

86. **Lung Affections in Glassblowers.**—Prettin found that the muscles seem to adapt themselves to their task so that glassblowers are not apparently more liable than others to have pulmonary emphysema. But, on the other hand, he found an unusually large proportion of tuberculous lesions among them. Fully 20 per cent. of the workmen presented evidences of a tuberculous lung affection, while emphysema was observed in only 5 out of the 230 glassblowers examined. It was very slight in the 2 subjects between 40 and 50 years old, and the 3 others were 52 to 58 years old, and had been glassblowers for thirty-four to forty-three years. He cites Fischer to the effect that not a single instance of emphysema was found in 500 members of military bands, as he published in 1902.

90. **Suprarenin to Artificially Induce Anemia in Operations.**—Müller relates experiments with suprarenin as a means of preventing bleeding during operations. He waxes enthusiastic over its virtues in this line, especially for operating on the liver. It is also extremely valuable for expelling the blood to allow better oversight of the conditions anywhere. In extirpating the thyroid or a salivary gland a 1/10,000 solution effectually expels the blood from all the finer and medium-sized vessels. The walls even of the arteries contract so that fewer ligatures are required, the field is cleared and the nerves can be more readily traced. His experiments were conducted on dogs, and he found that all kinds of minor operations on the neck could be done without the flowing of a drop of blood. He gives a table of 70 major operations performed on dogs, laparotomies, cystectomies, resection of liver, nephrectomies, etc., after preliminary injection of the suprarenin. There was only slight bleeding in 22, and none at all in the 52 others. The 1 per 1,000 and 2,000 solutions induce anemia immediately in all kinds of tissue, and may be used in this strength in operating on the kidney and liver, but a 1 per 5,000 or 1 per 10,000 is sufficient for the purpose in skin, fat and muscle tissue. The anemia is complete, either immediately or not later than two minutes. He announces that as much as 10 c.c. of the 1 per 1,000 strength may be safely injected into an adult without fear of indications of intoxication. In these strengths the suprarenin has no injurious influence on the living cells. He also proclaims that a 1 per 10,000 and 20,000 solution has a stimulating action on the heart muscle when injected directly into it, and 1 c.c. of this strength may be injected into the myocardium without harm. For inducing anemia the suprarenin must be injected directly into the tissues, as applied externally its action is not so apparent. It is destined to prove a great help in operating on debilitated and other subjects who have no blood to waste. Its action is apparent by the yellowish tint assumed by the tissues, and its influence lasts for a long time, sometimes for several hours. No after-hemorrhage has ever been observed in any instance, and need not be feared. Suprarenin is readily soluble in water, can be sterilized by boiling, and the solutions should be made with physiologic salt solution. The injections are not painful, but if desired they may be preceded or accompanied by local anesthesia. He found for general use that the best syringe was one with a capacity of 5 c.c. and a very long, thin needle. For the liver he prefers a blunt needle with an opening in the side. In his clinical experience with the suprarenin he found that the anemia was not so rapidly induced in inflamed as in sound tissues, but the extreme limits are given in the above figures. He is now engaged on similar research with adrenalin.

91. **Biologic Blood Test.**—Hauser's attempts to produce a powerful prepared serum for this test were so successful that the serum displayed such intense action that it agglutinated all kinds of blood to which it was applied. Consequently he warns that the purpose of the test is defeated if the serum is brought to such a high pitch of efficiency. Parallel tests with various kinds of blood should always be made at the same time. Microscopic examination of the blood should not be neglected, and can be made after the biologic test has been applied, using the sediment when the quantity of the blood is minimal. The reaction may be studied as it occurs in capillary tubes. He prefers a serum of a strength which renders the fluid turbid in less than half an hour, in the proportion of 1/30, while the other blood samples are still clear after six hours and show only traces of a flaky deposit by the end of twenty-four hours. He describes other technical points learned in his experience.

92. **Forensic Differentiation of Human and Animal Blood.**—Marx and Ehrnrooth suggest that the rapid agglutination

which follows when a foreign serum is added to a solution of human blood may prove useful for the differentiation of blood. When human serum is added to the blood the red corpuscles show very little if any effect, but when a foreign serum is added the red corpuscles become agglutinated in clumps nearly at once, and pile up with evidences of pronounced hemolysis. They proceed by dissolving the blood on an object glass with one or more drops of .6 per cent. salt solution to make a concentrated solution. They then draw a drop of blood from the finger tip and stir it into the dissolved blood. It is then examined under the microscope during the next fifteen minutes. In case of fresh blood the reaction occurs in a few seconds, but a few minutes may be required when the blood is several months old. They think that this method of differentiation will prove useful as a control test for the biologic method, or possibly substitute it.

93. **Prophylaxis of Ophthalmia Neonatorum.**—Dauber pleads for the compulsory use of the Credé instillations and the prompt notification of every case of eye affections in infants.

94. **Joint Formation as an Aid to Healing of Apical Lesions.**—Hofmann has examined 77 cadavers to corroborate Freund's statements in regard to the value of a movable joint in the cartilage of the first rib as a factor in the prevention and cure of pulmonary tuberculosis. Freund's communication was summarized in The Journal, xxxix, p. 170. He noticed that the first costal cartilage was exceptionally short and rigid in 30 cases of pronounced tuberculosis, while in the healed cases there was a movability amounting to an actual joint formation in some. He, therefore, suggested the severing of the first costal cartilage to give the lung more space, in cases of recurring apical affections. Hofmann's experience has confirmed these assertions, and he even goes beyond Freund in advocating the severing of the cartilage as a still earlier precaution, not waiting for the disease to progress to such lengths. He also states that the joint can be made as far along as at the junction of the cartilage and rib. The benefits of the chondrotomy are not restricted to abnormally short cartilages, but the operation is destined to aid in every case, as air and oxygen can reach the apex more freely, and the lung can expand better and aspirate larger quantities of blood into the apex.

Vratchebnaya Gazeta, St. Petersburg.

101 (XI, No. 1.) *Blood in Rötheln. N. Tchistovitch and O. A. Shestakova.—O morphologitcheskikh izmeneniyakh krovi pri krasnukhye.
102 Contrast Obsessions in Melancholia. S. Sukhanoff.—O nayyazt[illegible] otchetaniyakh po contrastu pri [illegible] niakh. One case.
103 *Thyro[illegible] V. G. Baldovsky.—2 slutvhaya letcheniya eklampsie ekstractom shtchitovidnoi zhelezy.
104 *Arrhenal in Malaria. I. N. Kavaleroff.—Nabliudeniya nad dyestviem arrenala pri bolotnoi likhoradkye.
105 (No. 2.) Study of Action of Arsenic. I. M. Dogiel.—Nyekotorie preparaty myshyaka po otnosheniyu ikh k zhevotnomu organizmu.
106 Nine Cases of Foreign Bodies or Rhinoliths in Nose. S Preobrashensky.—9 slutchaev, etc. (Commenced in No. 1.)
107 Physiologic Sexual Life Among the Kirghish Peoples. V. V Vasilieff.—Nabliudeniya nad physiol. proyavleniyami polovoi zhizni u kirgisok.
108 (No. 3.) Certain Psycho Physical Traits in Criminals. N. S. Lobas.—Nyekotoriya tcherty iz psycho-physiki prestupnikov. (Commenced in No. 1.)
109 Case of Achylia and Peritonitis with Adhesions Consecutive to Contusion of Abdomen. S. A. Bobovitch.—K voprosu o traumatitcheskikh zabolyevaniyakh zheludka. (Commenced in No. 2.)
110 Eighty-seven Text-books Examined from the Standpoint of the Hygiene of the Eye. I. Eliasberg.—(Po sposobu prof. H. Cohn'a).
111 O desinfectionnom apparata i gazye Clayton'a. P. O. Smolensky.

101. **Blood in Rotheln.**—The blood was either quite normal or showed merely slight leucocytosis with mononuclear neutrophiles predominating, in the 4 children examined.

103. **Thyroid Treatment in Eclampsia.**—The success of thyroid treatment in the 2 cases reported completely confirms Nicholson's statements in regard to the efficacy of thyroid extract in this affection. Baldovsky found that the convulsions abated under its influence, while it also regulated the eliminating functions of the kidneys. The urine increased in quantity, and the proportion of albumin rapidly diminished. He used narcotics in combination with it, and recommends this practice as they keep the convulsions in check. His dosage was the same as Nicholson's, a .3 gm. tablet of thyroidin three or four times a day. The curves appended show the prompt benefit derived. The albumin nearly vanished in the first case within four hours of the second dose, which had been given two hours after the first one, dropping from more than 4 to a proportion of less than .5.

104. **Arrhenal in Malaria.**—Gautier's sodium cacodylate method of treating malaria has been found extremely effectual by Kavaleroff. He gives the particulars of 22 cases and states that it stands on the same plane as quinin, and possibly even surpasses it for certain cases. It is more effectual in recent infection.

Russkii Vratch, St. Petersburg.

Last indexed page 408.

112 (II. No. 33.) *K utcheniyu Addison'ovoi bolyezni (disease). N. N. Darkshevitch.
113 *Cocain Anesthesia. A. P. Krimoff.—Nyeskolko slov po povodu myestnago obezbolevaniya cocainom.
114 (No. 34.) Study of the Reduplicated Heart Sounds. V. P. Obraszoff.—O razdvoennykh i pribavotchnykh tonakh serdtsa pri neposredstvennom ego vyslushivanii. (Concluded.)
115 *Operative Treatment of Fractured Patella. N. N. Veselovzoroff.—K voprosu ob operat. lyetchenii perelomov nadkolyennoi tchashki.
116 Pokhozhaya na syennyiu palotchka conjunctivita (Bacillus conjunctivitidis subtiliformis). I. A. Michalski. Found in 50 cases.
117 *Ligature of Saphena for Varicose Veins. P. S. Tentchinski. O koreunom lyetchenii varicoznykh rassherenii ven nizhnikh konetchnosti po sposobu Troyanova-Trendelenburg'a.
118 (No. 35.) Alexins in Relapsing Fever. A. A. Melkikh and I. V. Kallapine.—O soderzhanii alexinov pri vozvratnoi goryatchkye.
119 Case of Multiple Sclerosis. Y. F. Kaplan.—Slutchai mnozhestvennago skleroza s preobladayushtchim porazheniem psychiki, etc.
120 *New Method of Operative Treatment of Uterine Cancer. M. A. Straukh.—O novyeshem operativnom vmyeshatelstvye pri rakye matki.
121 *Floating Liver and Heart Disease. M. I. Stern.—Bluzhdayushtchaya petchen v svyazi s bolyeznami serdtza.
122 (No. 36.) Gumma in the Sclerotic. A. V. Lotine.—K voprosu o gummoznykh opukholyakh sklery.
123 (No. 37.) Relations Between Chemical Composition and Therapeutic Action. M. I. Breitmann.—Sootnoshenie mezhdu chemitcheskim sostavom lyekarstv i ikh physiologitcheskim dyestviem.
124 *Biologic Blood Test. P. N. Diatroptoff.—K voprosu ob otlitchitelnom raspoznavanii tchelovyetcheskoi krovi ot krovi [illegible] o-medicinskoi praktikye.
125 [illegible] of Nissl's Bodies in Certain Cells in the Spinal Cord. [illegible] su raspolozhenii Nissl'evskago [illegible] stva v nye[illegible] ga.
126 Ba[illegible] S. I. Gold[illegible] v trupakh. (Commenced in No. 36.)
127 (No. 38.) Measures Against Leprosy. I. I. Hubert.—Organizatziya borby s prokazoi.
128 Two Cases of Rupture of Laparotomy Scar. A. N. Zimin.—2 slutchaya razryxa rubtza poslye tchrevosyetchenii.
129 Dalnyeishiya nabliudeniya nad lyetcheniem chorea Sydenham'a bolshimi kolitchestvami myshyaka (arsenic). M. O. Shaikevitch.
130 Actinomycosis atypica pseudotuberculosa. Streptothrichosis hominis autorov. I. A. Shabad. (Commenced in No. 36.) One case.
131 The Recent Tendencies in Artificial Feeding of Infants. S. A. Barski.—Novia tetcheniya v voprosu ob iskusstvennom vskarmlivanii dyetei. (Commenced in No. 36.)

112. **Addison's Disease.**—Scraps of skin contributed voluntarily by a young man suffering from Addison's disease were examined by Darkshevitch to determine the changes causing the pigmentation. The findings were not materially different from those observed in similar tissues in the cadaver. The pigment granules did not give the reaction for iron.

113. **Local Cocain Anesthesia.**—Krimoff reports that in both experimental research and the clinic much better results are obtained with pasteurized solutions of cocain than with those sterilized by boiling, and also with a 1 per cent. strength than with a stronger solution. He dissolves the cocain in sterile water and pours the fluid into glass tubes which are fused and then heated to 60 C. for three hours. In operating and in experiments on animals the anesthesia induced with cocain thus prepared lasted an hour or two, while twenty to thirty minutes was the limit with a solution sterilized by heating to 100 C., that is, boiled. He advocates local anesthesia as peculiarly adapted for herniotomies. He injects the cocain along the course of the incision, using six or seven syringefuls, and injecting from one-half to three-quarters of a syringeful at the point where the ileo-inguinalis nerve emerges, introducing

the needle deep into the tissue. He has thus operated on a number of cases of inguinal hernia with complete success, and no dread of the vomiting liable to follow chloroform. He analyzes the results obtained with various concentrations in 155 different operations. They demonstrate conclusively that cocain once boiled loses considerable of its anesthetizing power, and the anesthesia is much less durable than when a 1 per cent. solution is pasteurized, that is, kept at 60 C. (140 F.) for three hours.

115. **Fracture of Patella.**—Twelve cases are reported to demonstrate the advantages of suturing the bone, and to emphasize the fact that the final success of the intervention depends fully as much on the management after the operation as on the operation itself. By the tenth or twelfth day, if everything is proceeding favorably, the splint is removed and a lighter one is applied, reaching from the middle of the thigh to the middle of the leg, and the entire limb is subjected to systematic massage, with electricity if the condition of the muscles requires it. Passive movements should be commenced between the twentieth and thirtieth day, exclusively by the physician, and the patient then allowed to get up.

117. **Varicose Veins in the Army.**—Tentchinski concludes from extensive experience among the troops at Vladivostok that new recruits with even slight degrees of varicose veins in the legs should not be accepted for military service if the saphena magna is painful from this cause. Such a condition is liable to become acute and finally severe and chronic, necessitating the dismissal of the recruit. Even with the best of wills it is impossible for him to do military service during a severe attack. Another reason for rejection is that varicose veins are usually a sign of some constitutional affection or tendency to arteriosclerosis or neuritis. He believes that the saphena magna is first affected, the trouble being some disturbance in its valves. This not only reduces the functions of the limb but affords a predisposition to infectious processes. He operated on 21 patients, with a complete cure in 67 per cent. He describes considerable research likewise on the cadaver to better locate the saphena. He followed the Troyanoff-Trendelenburg technic.

120. **Uterine Cancer.**—Straukh operated on 5 patients by the Mackenrodt method, on 8 by the Wertheim, and on 7 by a method which is practically a combination of the other two. It aims to remove the lymphatic glands with the neoplasm more completely than is possible by other technics. He removes the growth through the vagina and cauterizes the raw surfaces with the Paquelin. The patient is then placed in the Trendelenburg position and the abdomen opened. The uterus is ablated and the posterior part of the vagina is sutured to the posterior sheet of the peritoneum. The latter is then drawn up on each side and careful search made for all glands, removing all the accessible ones, and concluding the intervention by drainage through the vagina. Three of the 20 patients died from septicemia and 2 from casual causes, but none in the group operated on by his method nearly two years ago. All are in good health to date.

121. **Floating Liver in Heart Disease.**—The congestion produced by a severe cardiac affection entailed secondary displacement of the liver in the case described. Stern thinks that the venous stasis in such cases is liable to still further displace an already abnormally movable liver, and is also able to render movable an otherwise normal liver. The movability of the liver is liable to have in turn an unfortunate influence on the heart. His patient was a man of 63, who had previously had three attacks of angina pectoris. The dragging of a heavily congested liver was evidently causing serious heart disturbances. There was resonance instead of dullness over the usual liver area, accompanied by severe, colicky pains and paroxysmal heart symptoms. The patient died with symptoms of disturbed cardiac compensation. Bruschini, he states, was the first to call attention to the mutual relations between heart disease and floating liver, reporting two cases of their coincidence and pointing out the connection between them.

124. **Biologic Blood Test.**—The value of this test is extolled by Diatroptoff, who mentions a recent forensic case in which its testimony was of decisive import. The judge and experts were taken to the laboratory and inspected the results of the tests half an hour after the specific serum had been added to the blood stains. He emphasizes, however, that after thirty hours bacterial action is liable to induce a turbidity which might prove misleading unless forewarned. If the tubes are to be kept for examination later he found that a drop or two of chloroform, added at the outset, prevented this bacterial action.

Books Received.

Acknowledgment of all books received will be made in this column, and this will be deemed by us a full equivalent to those sending them. A selection from these volumes will be made for review, as dictated by their merits, or in the interests of our readers.

The American Year-Book of Medicine and Surgery for 1904. A Yearly Digest of Scientific Progress and Authoritative Opinion in All Branches of Medicine and Surgery, Drawn from Journals, Monographs and Text-Books of the Leading American and Foreign Authors and Investigators. Arranged, with Critical Editorial Comments, by Eminent American Specialists, Under the Editorial Charge of George M. Gould, A.M., M.D. In Two Volumes. Volume I, Including General Medicine. Pp. 673. Fully Illustrated; Volume II, General Surgery. Pp. 680. Fully Illustrated. Cloth. Price, per volume, $3.00 net. Philadelphia, New York, London: W. B. Saunders & Co. 1904.

An Atlas of Human Anatomy, for Students and Physicians. By Carl Toldt, M.D., Professor of Anatomy in the University of Vienna. Assisted by Prof. Alois Dalla Rosa, M.D. Translated from the Third German and Adapted to English and American and International Terminology. By M. Eden Paul, M.D., Brux., M.R.C.S., L.R.C.P. Third Section. D. Myology. (Figures 490 to 640 and Index.) Cloth. Pp. 140. New York: Rebman Co.; London: Rebman, Limited. 1904.

Experiments Concerning Tuberculosis, Under the Supervision of the Biochemic Division. Part I. The Virulence of Human and Bovine Tubercle Bacilli for Guinea-Pigs and Rabbits. By Marion Dorset, M.D., Assistant Chief of Biochemic Division, Bureau of Animal Industry. Paper. Pp. 29. Washington: The Government Printing Office. 1904.

Preventive Medicine. Two Prize Essays. The General Principles of Preventive Medicine. By W. Wayne Babcock. The Medical Inspection of Schools; A Problem in Preventive Medicine. By Lewis S. Somers, M.D. Paper. Pp. 54. Published for Gratuitous Distribution to the Medical Profession by The Maltine Company, Brooklyn, N. Y.

University of Califo[illegible] the Production and Suppression of Gl[illegible] Through Electrolytes. (Preliminary [illegible] Martin H. Fischer. Paper. Pp. 2. Berkeley: The University Press.

Subjective Sensations of Sight and Sound, Abiotrophy and Other Lectures. By Sir William R. Gowers, M.D., F.R.C.P., F.R.S., Hon. Fellow R. Coll. Phys., Ireland. Cloth. Pp. 250. Price, $2.00. Philadelphia: P. Blakiston's Son & Co. 1904.

Third Annual Report of the New York State Hospital for the Care of Crippled and Deformed Children for the Year Ending Sept. 30, 1903. Hospital Located at Tarrytown, N. Y. Paper. Pp. 28. Albany: J. B. Lyon Co. 1904.

Annual Report of the Surgeon General of the Public Health and Marine-Hospital Service of the United States for the Fiscal Year 1902. Paper. Pp. 487. Washington: The Government Printing Office. 1903.

Dioxogen. A Monograph Descriptive of Its Physical and Chemical Properties, Therapeutic Action and Uses in Medicine, Surgery, Dentistry and Hygiene. Paper. Pp. 31. New York: The Oakland Chemical Co. 1904.

Annual Report of the Department of Health, Niagara Falls, N. Y. For the Year 1903. Submitted by Carl G. Leo-Wolf, M.D. Health Officer. Paper. Pp. 30. Niagara Falls, N. Y.: *Gazette Press.*

Surgical Notes from Four Continents and West Indies. By Nicholas Senn, M.D., Ph.D., LL.D., Head of Department of Surgery, Rush Medical College. Cloth. Reprints from American Medicine.

Fourteenth Annual Report of St. Mary's Hospital, Rochester, Minn., for the Year 1903. Conducted by the Sisters of St. Francis Paper. Pp. 29. Rochester, Minn.: Daily Bulletin Print. 1904.

Creighton Memorial St. Joseph's Hospital, Omaha, Neb Twenty-fourth Annual Report for the Year Ending Dec. 31, 1903 Paper. Pp. 40. Omaha: Press of Buckley Printing Co.

Report of the Select Committee on Ventilation, Appointed by the House of Commons (Blue Book, 1903). Paper. Pp. 31. Price, 1 shilling. London: Hickson, Ward & Co. 1904.

Transactions of the Luzerne County Medical Society, for the Year Ending Dec. 31, 1903. Volume XI. Paper. Pp. 182. Wilkesbarre, Pa.: E. B. Yordy Co.

Bellevue and Allied Hospitals, City of New York. First Annual Report. Jan. 1, 1902, to Dec. 31, 1902. New York: Martin B. Brown Co. 1903.

The Man Who Pleases and the Woman Who Charms. By John A. Cone. Cloth. Pp. 131. Price, 75 cents. New York: Hinds & Noble.

Nineteenth Annual Report of the Adirondack Cottage Sanitarium, Saranac Lake, New York. November, 1903. Paper. Pp. 15

Medical Union Number Six. By William Harvey King. Cloth. Pp. 58. Price, 35 cents. New York: The Monograph Press. 1904.

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Original Articles.

THE DIETETICS OF ATONIC DILATATION OF THE STOMACH

BASED ON A STUDY OF THE PHYSIOLOGY OF GASTRIC MOVEMENTS.[*]

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CHICAGO.

Food taken into the stomach is subjected to certain mechanical and physical forces derived from the energy of muscle contraction. The gastric movements result in a minute subdivision and final ejection of the stomach contents into the duodenum. Failure of the stomach to triturate and mix the food may be compensated for by chemical and other means, but if the expulsion of the contents is not accomplished, a most serious condition results that is paramount to every other consideration.

MUSCLE TONE.

The characteristics of unstriated muscle, of which gastric muscle is composed, present the phenomena of a peculiar functional activity called tone. Tone differs from the peristaltic or contraction waves, in that there is a condition of continued contraction or shortening which persists, more or less constantly, decreased or increased by varying conditions. The relation between the condition of muscle tone and changes occurring in ordinary contraction, such as peristaltic waves, is not yet thoroughly understood. The continued shortening or tone of unstriated muscle is considered to be under the control of the nerves. In animals, muscles, such as those of the claw of the crayfish, and the heart of the helix, possess the tonus independent of the nervous system. (Petrowsky.)

By the term tone or tonus we refer specifically to muscle tone, by which is meant that the muscle remains permanently short. The elongation or lax state of the stomach muscle allows a condition of what is termed clinically dilatation—lengthening of the muscle fibers. The function of peristaltic motion of the stomach is so inseparable from the phenomena of tonus of gastric muscle that the two conditions are usually considered together. Clinically, it is difficult to separate these factors until more definite physiologic relations are known. We have an example of two functions in the stomach during digestion, whereby we may observe with the *x*-ray the quiescent, tonic state of the cardiac portion, and the active peristaltic contraction of the pyloric end of the stomach, as shown by Cannon.[1]

THE CAUSE OF GASTRIC MOVEMENTS.

The stomach muscles are shaped into a subspherical hollow organ, which, during rhythmical contractions (peristaltic), materially alters its shape. The pyloric end (antrum pylori) approaches the cylindrical form during peristalsis, while the cardiac end retains more of its spherical form in a state of tonic contraction, giving the stomach a gourd-like appearance.

It was formerly thought (Beaumont and Brinton) that the entire organ was excited into a series of contractions during the digestive process, but it has been shown by numerous observers that only the pyloric end shows peristaltic action, while the cardiac end remains in a tonic and quiescent state. (Cannon, Hofmeister and Schutz, Moritz, von Mehring, Rossbach.[2])

To determine the results of the chemical action of food on gastric movements and those produced by different forms of mechanical stimulation, the author carried out a series of experiments on dogs, as well as on the human subject, As shown by the protocols at the end of this article, strong HCl, peptones, albumoses, starch, etc., showed no appreciable effect on the movements produced by these substances applied to the mucous membrane, while distention with air or water immediately excited increased peristalsis. If the air or water was under control, by forcing it into a bag within the stomach, so that all the air or water would return promptly, the resultant contractions were more numerous and vigorous. When vibratory exercise was used, the contractions were increased in proportion as the tension was increased. It would appear that tension is one of the most important factors in peristalsis of the stomach. The mechanical and physical factors become of greater importance in dietetics than the chemical action of food, especially in conditions of atony and diminished muscle contractions.

It was claimed by Brücke, chiefly on theoretic grounds, that the cause of the increased vigor and number of contractions at the end of the digestive process was due to the HCl, and this is taught by most physiologists to this day. But Hirsch[3] shows that water solutions of acid or alkalies pass out of the stomach independently of the reaction of the stomach contents.

Moritz[4] found the chemical substance of food has some effect on the time-expulsion of the contents. If very acid or alkaline, the contents remained longer.[5] Pawlow[6] has shown that when the acid-gastric contents reach the duodenum they cause by reflex action, a temporary closure of the pylorus.

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[*] Read in a symposium on dietetics before the Chicago Medical Society, Jan. 20, 1904. This symposium was reported in THE JOURNAL, Jan. 30, 1904, p. 329.

[1] Cannon: Am. Jour. Physiol., 1898, vol. i; 1903, vol. ix, No. 6.

[2] Since writing this article I note that Lommel (Münchener medicinische Wochenschrift, 1903, i, No. 38) reports some recent observations of gastric movements in dogs similar to those made by Cannon. After feeding the trained dogs with chopped meat mixed with bismuth, rhythmical movements could be seen by the aid of the *x*-ray in two to six minutes, starting from the greater curvature; within five minutes the entire stomach took part. He shows, as Cannon reported, that psychic emotions influence the gastric movements.

[3] Hirsch: Centralbl. f. klin. Med., 1893, No. 4, 18.

[4] Verhandl. deutsch. Naturforscher und Aerzte, Vienna, 1894.

Chemical stimulation (alkaline or acid) may cause opening or closing of the pyloric orifice, as clinical experience indicates. The mechanical effects of tension on the muscle walls producing stomach movements seem most important.

MOVEMENTS OF ALL HOLLOW VISCERA THE RESULT OF TENSION.

In the observations that we make of the movements of other hollow *muscle viscera*, we note that similar factors enter into the causation of peristaltic contractions. According to Goltz,[7] the expulsion of urine is caused by the rise of pressure in the bladder; *with increasing tension* the contractions increase. It has been shown by von Zeissl[8] that with *increasing fluid causing increasing tension*, which in turn augments the force of each contraction, the pressure within the bladder is raised high enough to overcome the sphincter, and cause expulsion of the urine. Von Zeissl found that micturition occurred normally even after all nerve supply had been cut off from the bladder. The heart of a snail or the apex of a frog's heart, which is devoid of nervous ganglia, will contract rhythmically on distention with air or fluid.

THE UNIVERSAL STIMULANT OF PROTOPLASMIC MOTION.

Tension in one form or another *appears to be* the universal stimulant of protoplasmic motion. As Matthews and Whitcher[9] have shown in their experiments on the "Importance of Mechanical Shock in Protoplasmic Activity," however various the mechanical stimuli may be in influencing protoplasmic activity, they produce their effect by altering the state of the protoplasm. This change in state, however, is followed by definite metabolic structural changes, which must be *sufficiently abrupt to excite activity*. Meltzer[10] makes the unique suggestion: "But why not also assume that the great motility of the sperm is in every case an adequate mechanical shock appropriate *to start the normal cycle of cleavage* just as we see *that a simple mechanical shock* may be the means of setting up an artificial segmentation of the eggs of starfish."

The fundamental principles on which tension rests in the contraction of muscle have been carefully worked out by *Gad, Kaiser v. Kries*, and Schenck,[11] which show that the stimulus to muscle contraction is supplemented or re-enforced by second and repeated stimulation having its source in the tension which the resistance produces. Thus, as the muscle contracts against the load, it gathers energy from the resistance it meets. The resistance to motor power is of equal importance for the resulting movement and work.

Experimentally, we know that if a load is added to a muscle, the amount of work *it can then accomplish, within certain limits, is enormously increased*. Without a load, no work can be accomplished, though energy may be expended. By adding 30 grams of weight to a prepared muscle, the work accomplished leaps to 330 grammillimeters of work. Tension (lateral pressure) on the stomach wall excites the muscle to tonic contractions, and as the load decreases by the escape of the fluid portion of the stomach contents, it causes a marked increase in the force and number of the resulting contractions, which are observed at the end of the digestive period. The effect of tension under similar conditions is seen in the laboratory. When a muscle is connected with a strong spring or weight too heavy *to lift*, the muscle will contract without shortening. There will be energy expended, but no work accomplished. This is when *muscle is stimulated under what is known as isometric conditions*. If now the load be reduced so that the muscle can contract with shortening the resulting contractions show greater *vigor and accomplish* more work than the same muscle would if it had not previously met with a higher degree of resistance. The experiments recorded at the end of this report show *that tension produced by* stretching the gastric muscle by inflating the stomach with air causes a prompt response, and more powerful *contractions* follow when such stretching by inflation *is increased*.

An important difference between striated (voluntary) and unstriated (involuntary) muscle, as Fick has shown, is that the striated or *voluntary muscle* requires a comparatively slight degree of stimulation and of short duration, while the unstriated, such as stomach muscle, requires *a much more powerful* and longer duration of the stimulus to gain the greatest advantage. The resistance of the load to muscle contraction excites the liberation of energy, which, *as we have seen*, is necessary to accomplish work, but the duration of such stimulus must be of sufficient length of time to obtain the highest degree of contractions or peristaltic waves. In exhaustion, fatigue and atony, the same law exists, except that it requires within limits increased stimulation, and following the period of work a much longer period of *rest must be allowed for recovery* than under normal conditions.

THE RÔLE OF THE NERVOUS SYSTEM.

The question of the relation of the nervous system to the *gastric movements* has been the subject of a large amount of experimental investigation. Openchowski[12] looked on the nervous ganglion in the walls of the stomach as centers for the co-ordination of movements. The vagus has been looked *on as the motor* nerve of the stomach, and such observers as Longet, *Goltz, Bram*, Houckgeest, Openchowski and Morat have shown *that* movements occur after excitation of the cut ends of the vagus, but von Bram, Houckgeest and Morat observed such movements were dependent chiefly on the *stomach* being in a state of digestion. Langly[13] obtained variable results *after the administration of curare* and atropin.

Hlasko[14] *endeavored to locate the cranial center for* the movements of the stomach, and concluded *that* it lies in the corpora quadrigemina, and that probably the vomiting center is located in the same area, the fibers passing to the stomach along the spinal cord.

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[5] Since writing this article I note that Meyer, working in Professor von Mering's clinic (Meyer: Ist die Entherung des Magens abhängig von dem Grad der Säurebildung? Archiv f. Verdauungskrankheiten, vol. ix, No. 6, 1903) presents experiments showing that the emptying of the *stomach contents* is in *proportion to the acidity. The contents are discharged* more quickly in deficient acidity and anacidity than under normal acidity, while in hyperacidity the reverse is the case.

[6] Das Experiment als Zeitgemässe und einheitliche Methode mediziner Forschung, Wiesbaden, 1900.

[7] Archiv f. d. ges. Physiol., Bonn, 1874, vol. viii, p. 477; Kuss: Lehrbuch d. Physiolog.; Fenger: Allg. Wien. med. Ztg., 1893.

[8] V. Zeissl: Wein. klin. Woch., 1896.

[9] Matthews and Whitcher: Am. Jour. Physiol., vol. viii, No. 4, p. 306.

[10] Meltzer: Am. Jour. Physiol., vol. ix, No. 5, p. 251.

[11] Gad: Archiv f. Physiol., Leipsic, 1893, p. 170; Von Kries: Archiv f. Physiol., Leipsic, 1880, p. 370; Schenck: Archiv f. d. ges. Physiol., Bonn, 1891, vol. l, p. 166; 1892, vol. lii, p. 117; vol. lv, p. 626.

[12] Openchowski: Archiv f. Physiol., Leipsic, 1889, p. 549.

[13] Langly: Journal Physiology, Cambridge and London, 1898, vol. xxiii, p. 407.

[14] Hlasko: Inaugural Dissert., Dorpat, 1887.

Cannon has shown that anger, fear and other mental disturbances inhibited the movements of the stomach.

Schiff and Morat both concluded that rhythmical contractions were increased after stimulation of the splanchnic nerves.

Carion and Hallion[15] found that section of the vagus nerve is sufficient to produce complete atony and permanent dilatation of the stomach of the dog.

Pawlow and Katschkowski[16] have shown that cutting even both vagi nerves produces only a temporary disturbance of the gastric movements. "Indeed," asserts Pawlow, "the operation is consistent with long life and an excellent condition of health."

As to the gastric movements being operated by the nervous mechanism, the variableness of experimental results and the diversity of conclusions prevent us from assuming any positive position, except to admit the coordinating and regulating influence of the nervous system.

We may still conclude with Ewald:[17] "Yet all these experimental stimulations in mammals have an indefinite and uncertain character; their success is not great, and by no means constant."

THE MECHANICAL WORK OF THE STOMACH.

The mechanical work of the stomach may be divided into three stages: 1, Distention with food; 2, expulsion; 3, relaxation.

The normal resistance at the pyloric end of the stomach increases the tension (lateral pressure), which, within physiologic limits, increases the stimulus to more powerful and frequent contractions. At the end of the digestion we find the maximum degree of power and number of contractions. According to Frank,[18] increasing the resistance in front corresponds to increasing the load. The resistance is in proportion to the angle of the pyloric funnel and size of the aperture. The size, according to Dwight, of the normal human pyloric orifice, which is usually oval in shape, varies from 7x4 mm. up to 20x18 mm. The greater the resistance within certain limits, the greater must be the size and thickness of muscle. A definite amount of work is dependent on the size of the muscle.[19] In frogs, 1 c.c. of muscle is capable of 3 kilogrammeters of work, while 1 c.c. of human muscle is limited to 8 to 10 kilogrammeters of work, so that increased resistance demands not only increased size or volume, but better quality of muscle substance.

We find that muscle becomes hypertrophied in proportion as the work increases within certain limits and physiologic conditions. Whether the increased work be due to increase in the load within the stomach cavity, or the increased resistance in front, hypertrophy is the result. If the work passes beyond the physiologic limits, fatigue or atony and dilatation follow. Thus atony and dilatation may be found as the result of increased resistance in front, such as by stenosis of the pylorus, and cause prolonged overwork and exhaustion of the gastric muscle, or the overwork and exhaustion may be due to constant and excessive work on the load within the gastric cavity when no obstruction exists. Overwork and ultimate exhaustion are the result in either case, but the pathology of these conditions and the treatment are a different question.

I have shown[20] experimentally that prolonged intermittent tension of gastric muscle produces fatigue and dilatation of the stomach.

Ewald[21] has clinically observed that "atony of the stomach causes lengthened stay of food in the stomach. The distention of the stomach in turn paralyzes its muscle fibers."

From Penzolt,[22] von Mehring[23] and Moritz,[24] we learn the time required for the normal stomach to empty itself of the various classes and amounts of food and liquids. Penzolt found that digestibility of food is influenced much more by consistency than amount up to certain limits. The increased quantity taken does not proportionately increase the duration of the sojourn of the food in the stomach. Twice the amount of food taken at a time does not double the time required for digestion; six times the amount of original quantity (300 grams) of beef only required three times the original length of time before leaving the stomach; crackers quadrupled in quantity only required twice the time, and of liquids the quantity could be increased five times, with only double the time of the duration of the stay within the stomach. These empirical experiments were made on the healthy human stomach, but, as Riegel rightfully observed, "similar conditions are obtained in a dilated stomach." The explanation of these facts may be found in Fick's observations.

According to Fick,[25] if a muscle work against a heavy load, one-quarter of the liberated energy results in mechanical work, but if the weight be light, not more than one-twentieth of the energy is obtained as mechanical work. These facts correspond to the universal law of work and fatigue in all animals. The kind and degree of muscle work that produce fatigue vary in different muscles of the same animal. The power of the blood to preserve the irritability of muscle is seen in the experiments of Ludwig and Schmidt,[26] von Frey,[27] and H. N. Martin.[28]

THE FATIGUE OF GASTRIC MUSCLE.

I have shown (Loc. cit.) that fresh muscle serum neutralizes the toxic fatigue products of fatigued gastric muscle.[29] I have repeatedly shown by experiments and clinical experience that in fatigue or exhaustion of the stomach a much longer period of rest should be given than under normal conditions. If exhaustion is the result of increased resistance in front, as in stenosis of the pylorus, this rest can only be hoped for in the removal in one way or another of the obstruction.[30]

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[15] Carion and Hallion: La Semaine Médicale, Paris, Aug. 31, 1895.

[16] Pawlow: The Work of the Digestive Glands, English translation, London, 1902, p. 175.

[17] Ewald: Diseases of the Stomach, Am. Trans., 1899, p. 461.

[18] Frank: Zur Dynamik der Herzmuskels, Ztschr. f. Biol., 1895, vol. xxxii, p. 370.

[19] Compare size of each muscle fiber of pregnant with non-pregnant uterus.

[20] A Study of Fatigue in Gastric Muscle, American Gastro-Enterolog. Assn., Washington, D. C., 1903, Med. Standard, December, 1903.

[21] Ewald: Loc. cit., p. 211.

[22] Penzolt: Deut. Arch. f. klin. Med., 1, 535, 1893.

[23] Von Mehring: Therapeut. Monatschr., 1893; and Verhandl. die XII Congress f. innere Med., Wiesbaden, 1893.

[24] Moritz: Münch. med. Woch., 1893, No. 38; 1894, No. 41.

[25] Fick: Pfleuger's Archiv, 1878, xvi, p. 81.

[26] Ludwig and Schmidt: Zitzungsberichte der Math.-Phys. Classe der k. sächs Gesellschaft der Widdenschaften, vol. xx, 1868.

[27] Von Frey: Archiv f. Anat. und Phys., 1885; Physiologische Abtheilung, p. 533.

[28] Martin: Studies from the Biological Laboratory, Johns Hopkins University, 1882, vol. ii, p. 188.

[29] The toxins of fatigue caused, as I have shown, antibodies to form. These facts are in agreement with the more recent experiments of Weichardt (Münch. med. Wochenschr., Jan. 5, 1904), on the skeletal muscles of mice and rabbits.

In other cases of atonic dilatation, a rational system of dietetics must be ordered; the pause for rest after the digestive period must be of sufficient duration for the stomach muscle to recover from the fatigue of each exertion. All the voluntary muscles are exercised by the daily activities of the body. Disturbances may arise from the abuse of muscle function, either by overwork or by lack of use. Food furnishes the normal exercise of gastric functions, and it is the abuses of the gastric function in one way or another that cause most of the pathologic results, one of the commonest disorders from infancy to old age. We may modify the term abuse in saying that what may be an error in quantity and character of food at one time may not be so under other conditions. Thus, after an acute disease, the greatest caution must be taken in the time, character and amount of the feeding.

DIETETIC MEASURES IN GASTRIC ATONY.

In the cycle of digestion there are a series of events: First, ingestion of food; second, the digestion and expulsion; third, the interval of rest. By the frequent small meal system in gastric myasthenia, the first event, namely, ingestion of food, impinges on the second and third events, or the second event (digestion and expulsion) lapses into the third event, which is the interval of rest, an important period in atonic dilatation. So long as food or remnants remain in the stomach, the gastric muscle is constantly excited by continued and fatiguing work. By giving a larger meal, but less frequently, the labor period is relatively shortened, while the interval of rest is prolonged. If one-half the quantity of food is given at one time, it does not lessen the digestive period one-half, as shown by Leube, Penzolt and others. In most instances a larger meal, varying within the limits, excites the gastric motor activity to increased peristalsis and more rapid expulsion of the stomach contents.

The value of a single meal daily not only allows rest for the fatigued organ, but serves as a recuperative means for the overworked secretory apparatus. Pawlow[31] shows experimentally that when food is prescribed in small quantities, at short intervals, it causes the oft recurrence of "appetite juice," which is so rich and strong, and when the whole ration has been eaten at once, there is an enormous drop in the formation of hydrochloric acid and ferment. Clinically, I have utilized this principle for years, and have proven its practical value in hyperchlorhydria with atonic dilatation. (See Cases 5 and 6.) The importance of the consistency and the physical effect of food are seen in giving a boiled starch mixture in cases of certain forms of atonic dilatation with hyperchlorhydria. (See Case 6.)

Usually two meals are ordered in the beginning of treatment—one in the morning and one in the evening. The composition, character and amount of food prescribed vary under various and peculiar conditions. The chief point to be aimed at is the consistency of the food, which should be semi-solid and finely divided, pleasant to the taste, a matter of great importance, as Pawlow has shown. By separating the meal-times more widely, we will often restore lost appetite, which is another very important factor of digestion. Where the appetite is excessive, a cracker and a little hot water just before the meal will often prevent the unnatural wolf appetite. Hot water is useful, as it passes in a shorter time from the stomach than cold water. In fact, one of the numerous causes, and not the least, of our American dyspepsia, is due to the large quantity of ice water drank at all times, on all occasions.

Many important problems in the dietetics of atony of the stomach must necessarily be omitted here. We shall consider the application of dietetics to the one condition of diminished, or loss of muscle tonus, and contraction, on which are dependent many associated symptoms. For example, if it is found in gastric myasthenia that 150 grams of meat, 200 grams of carbohydrates, 30 grams of fat and 300 c.c. of fluid escape from the stomach in eight hours, we must not conclude that we can immediately repeat the same amount, for the reason that a longer period of rest must supervene after the meal to allow sufficient time for the weakened muscle to recover from fatigue. The muscle will accomplish the work if the given rest period is sufficiently prolonged to enable it to recover from the exertion.

AUTOSTERILIZATION OF THE STOMACH.

Prolonged rest, however, not only allows the fatigued muscle to recuperate and regain energy, but also permits ample drainage, thus preventing bacterial growth. Bacteria do not flourish luxuriantly in the empty and clean stomach. Each time food is ingested before the remnants of the previous meal pass out of the stomach, the food is inoculated by growing bacteria developing in the remnants of previous meals. The stomach gains no opportunity to disinfect itself, which it may do in the empty and restful state. Complete recovery can not be expected when frequent, though small, meals are continued at short intervals throughout the day or into the night, as our text-books recommend.

To summarize: The two main pathologic conditions to be corrected in atonic dilatation of the stomach are: 1, The exhaustion of the gastric muscle; 2, the bacterial growth in the gastric cavity.

The length of time a given quantity of food remains in the stomach, and the appearance and chemical condition of the food mass after a given period of digestion, aids in the diagnosis and determination of the dietetics to be prescribed.

THE APPLICATION OF DIETETIC METHODS.

As previously stated, the main object is to correct by dietetics the muscle weakness. This is done not only for the nutrition of the patient, but to prevent bacterial growth and the resulting toxins, which produce many of the grave symptoms found in this serious malady. Nature here might teach us a lesson. When an acute attack of nausea and vomiting occurs, with total anorexia, enforced rest of the stomach is accomplished. So, with our therapeutic measures, it is often necessary to place the stomach in a state of complete rest, and administer all food by the rectum.[32] It may be necessary when giving food by the mouth to lessen the total amount and undernourish the patient. The gain here is twofold: First, the food that is taken is better digested; and, second, it is not robbed of its nutritive value by bacterial growth.

In beginning a course of dietetic treatment, after the stomach has been placed at rest, the question of the character, composition, preparation and time of giving food presents itself. A uniform diet for all the degrees and forms of atonic dilatation can not be arranged. Theoretically, a liquid diet would be most advantageous. Practically, it is better to give finely divided solid food, properly prepared, with appropriate amount of liquid, sufficient to aid the stomach to macerate the mass and inject it into the intestines.

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[30] Riegel (Diseases of the Stomach. Am. Trans., Philadelphia, 1003, p. 385) says: "In one case we may be dealing with an absolute primary loss of muscle power; then we speak of atony. In another case the muscular power may be abnormally increased; there may be even hypertonicity, but the amount of work to be done is so large that even this increased muscle power becomes insufficient."

[31] Pawlow: Loc. cit., p. 136.

[32] Rössler: Wien. klin. Woch., 1893, No. 30.

If 3,000 calories are required of a mixed diet under normal conditions, it may be necessary in the beginning to cut this down to as low as 1,000 calories. For example:

100 grams breast of chicken finely ground.
100 grams mashed potatoes.
100 grams toasted bread.
30 grams butter.
300 c.c. hot, rich milk, which is first coagulated with rennet, in order that it may not coagulate in the stomach; then shaken back to liquid and heated.

The above furnishes about 1,000 calories, and may be taken in one meal, and the patient instructed to lie down on his right side for two hours. No more food is allowed until the following day. Water may be given by the rectum. In some cases it may be necessary to give, in addition, rectal feeding; often this is a disadvantage. Many of these patients have complete anorexia, and only forced feeding will restore the appetite and gain the necessary exercise for the stomach muscles and resulting nutrition. The following method has been of considerable advantage: One hundred grains of meat are first ground and placed in water for a few hours. The extractives are pressed out by a meat press and discarded; part of the albumin is lost, but this can be made up. Discarding the extractives lessens the irritation of a meat diet; 300 c.c. of milk are coagulated with rennet and shaken up to a liquid state and heated. Crackers are pulverized; one or two hard-boiled eggs are finely grated; bran is added sufficiently for "ballast." This is placed in a wide-mouthed bottle and thoroughly shaken. A cork is tightly fitted with two glass tubes, a rubber atomizer bulb is attached to one of the glass tubes, the other fits into the stomach tube, and the food is forced into the stomach by air pressure, which also keeps the glass tube from becoming plugged. Thus solid food can be given. Weak, jaded patients with complete anorexia and apparently no digestive energy, endeavoring to exist on the spoonful system of diet frequently exhibited, will by this method of forced feeding begin at once to show a desire for food. The exercise of the stomach brings about restoration of the digestive functions, and the patient soon begins to take his food independently with a relish.

Paradoxical as it may appear, a small quantity of food, as an Ewald test breakfast, will remain longer in the stomach of a patient with atonic dilatation and show less peristaltic activity than a large Leube test dinner. Clinically, it is frequently noted that a patient suffering from atonic dilatation of the stomach taking very small, but frequent, meals (either because so instructed or from fear of distress) will indulge in a comparatively large meal, followed by less degree of retention, with general improvement of the digestive activity.

In all cases with any marked degree of atony of the stomach, the patient must be strictly instructed to lie down after meals. Lying down for a time after a meal relieves the congested vessels, as the abdominal veins are devoid of valves.

In these cases of atonic distention of the stomach, the physiologic hyperemia during digestion becomes a pathologic congestion of the splanchnic vessels. The circulatory changes on distending the stomach are well recognized. The degree of these changes is shown in some recent experiments on the splanchnic circulation.[33] Lying down not only relieves the vessels, but also the muscle walls of the stomach, and by turning to the right side the ingesta shifts into the antrum pylori, which, as before stated, is the active mechanical portion of the stomach.

Von Mehring[34] has recently shown by experiments that lying down on the right side causes a more rapid emptying of the stomach.

The following cases are of interest, as examples of practical results obtained:

Case 1.—Dr. M., suffering from atrophy of gastric glands, motor insufficiency and dilatation of the antrum pylori. He had been in the habit of taking small and frequent meals, as he thought it gave more comfort. He was ordered two meals a day, one in the morning and one in the evening, gradually increasing to a liberal quantity. This resulted in great improvement. The motor power was restored to normal. The glandular condition remained the same. Several years have elapsed since treatment, but condition of the patient remains good.

Case 2.—Dr. W., atrophy of stomach, supposed to be carcinoma. Motor power very weak; marked retention. Frequent meals had been ordered. Result, emaciation and general decline. Treatment consisted of, first, one meal daily; afterward this was increased to two meals daily. The stomach, which had failed to respond to the smaller meals, was stimulated by the large ones.

Case 3.—C. Z., suffered from atrophy and atonic dilatation, with great emaciation and toxemia, the latter probably resulting from the dilatation and not from the atrophy. He had been taking small and frequent meals. By increasing the quantity and at the same time the interval between meals the condition rapidly improved. No return of glandular secretion, but motor power was restored.

Recent examinations and reports from the above cases show continued improvement under this diet system. The following case will illustrate a condition which I have repeatedly noticed:

Case 4.—A Southern woman, Mrs. M., wife of a physician, suffering with great weakness and emaciation, was bedridden as the result of chronic atonic dilatation of the stomach. Free HCl absent. Small and frequent meals had been administered with the usual line of treatment, as is customary in these cases. On examination, the stomach was enormously dilated, and the gastric wall in an advanced state of atony. A small Ewald test meal remained in the stomach twenty-four hours. A large meal of finely divided meat, mashed potatoes and bread and butter passed out of the stomach in ten hours. A single large meal was given once daily until the stomach gradually regained its tone; after this a small quantity of food would stimulate the muscle movements sufficiently to entirely empty the stomach.

The following are cases of hyperchlorhydria and atonic dilatation:

Case 5.—Mr. D., aged 48, suffered for years with atonic dilatation of the stomach with a high degree of hyperchlorhydria and supersecretion. He was incapacitated for any kind of business, which he had given up for two years, and had all the usual treatments for such condition—lavage, electricity, baths, springs, drugs and travel. At last, operation was the only hope offered, which he refused. On examination five years ago remnants of food, albumoses and free hydrochloric acid were found in the stomach twenty-four hours after ingestion. He was placed under treatment. Only 340 meals were allowed in 340 days, one meal a day. Complete restoration followed. The hyperchlorhydria and supersecretion disappeared with the atonic dilatation. Recent examination proves a permanent result. He now takes two meals a day, one in the morning and one at night.

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[33] Proc. Am. Gastro-Enterolog. Assn., 1900; Am. Therapist, November, 1900.

[34] Von Mehring: Therap. d. Gegenwart, No. 5, 1902.

Case 6.—A young man, aged 23, Mr. T. F., manifested every symptom of complete pyloric stenosis; great pain, vomiting and absolute weakness; emaciation. Frequent small meals of meat juice, peptones, rice, eggs, milk and most patent food preparations. Examination showed a high degree of atonic dilatation, with .35 per cent. free HCl. Retention of food four days; complete stagnation. The stomach was placed at complete rest for two days. First feeding, liquid corn starch boiled; four teaspoonfuls of the corn flour to 600 c.c. of water, sweetened and flavored. Next day repeated. Gradually increased quantity of starch; two meals a day, adding gradually macaroni, eggs, milk (first coagulated), and, finally, mixed diet. Result in ten days showed marked retraction of the dilated stomach, which emptied itself in six hours.

PHYSICAL METHODS ASSOCIATED WITH DIETETIC TREATMENT.

In connection with diet, certain mechanical methods of treatment are not only useful, but often indispensable. For the mechanical effects, lavage is recommended by most of the text-books, and added to this galvanic and faradic electricity, general baths, exercise and drugs. A large share of the patients I have treated in the last ten years had all these methods used, without success, often with harmful results. I have presented many of this class of patients, after a course of treatment, before this society on several occasions.[35] The objections to lavage have also been shown. While lavage has its use, in complete stagnation, as a palliative measure, those methods are most valuable, as I have frequently demonstrated, that can mechanically affect the gastric muscle directly, without washing out the necessary nutriment and secretion from the stomach cavity. Riegel seems to have obtained but little benefit from the use of static, galvanic or faradic electricity. I have found high frequency with the Oudin resonator of considerable benefit as an adjuvant.

CONCLUSION.

Physical and mechanical disturbances of digestion require that more attention be paid to the physical and mechanical effects of dietetics on the physiology of the gastric muscle.

EXPERIMENTS.

1. Method of determining the effect on the muscle movements of the stomach of dogs with various classes of food, gastric secretion, and the products of digestion when applied to the mucous membrane of the stomach.
2. The effect of tension on gastric movements.

The control dogs fasted for twenty-four hours. The abdomens were opened and covered with a very thin rubber diaphragm stretched across a frame to prevent evaporation. The surrounding area was kept warm. The spontaneous movements could be readily observed through the rubber diaphragm. The movements were noted as to the number of peristaltic waves, degree of contraction, length of each contraction, and time. The movements usually occurred not more than a minute apart; occasionally one every thirty seconds; frequently a pause of two or three minutes. They were characteristically weak and sluggish; many of the waves barely noticeable. Whenever the air was allowed to reach the abdominal cavity, movements were excited. The movements were restricted to the pyloric end of the stomach. The dogs used in the experiments were prepared in the same manner as the control dog, and placed side by side to observe any differences in the movements of the stomach. Injection of the substances used was accomplished with a piston syringe attached to a small needle douche, so that the fine jets or streams were projected against the mucous walls of both the pyloric and cardiac ends of the stomach.

Series 1.—Twenty c.c. of the solution or mixture of the following substances were injected into dogs' fasting stomachs; time of each observation, twenty minutes.

1. Filtered stomach contents withdrawn from a dog's stomach three hours after meat and bread.
2. HCl, .1, .2, 5 per cent. solution.
3. Pepsin, 1 gram.
4. Peptone, 2 grams.
5. Starch mixture.
6. Sugar, two grams.
7. Alcohol, 25 per cent.
8. Water.
9. Strong bouillon.

The above caused no increase in number or force of contractions. The following caused slight increase in number of contractions.

10. Tincture capsici, gtt. 3.
11. Mustard oil, gtt. 2.
12. Oil of cloves, gtt. 3.

The same substances were injected into dogs' fasting stomachs one hour before opening abdomen. No increase in number or force of contractions, as compared with the control.

Series 2.—Mechanical effects of tension.—1. In the first experiment, 300 c.c. water, at a temperature of 38 C., were introduced into the stomach, causing increased peristalsis.

2. Then 500 c.c. water, at 38 C., introduced into stomach, also caused increased peristalsis. On the water being allowed to return, the movements were markedly increased.

3. Water, 500 c.c. at 38 C., was introduced into a bag in the stomach, attached to a double stomach tube; movements were increased. The water was allowed to flow out and the peristaltic waves increased in number and frequency.

4. The temperature of the water was increased to 50 C.; this increased the muscle contractions.

5. Air was forced into the bag. One outlet of the double tube was attached to a manometer, the other to a compressed air tank. When the tension was raised to 10 mm., after a pause, the movements became more vigorous. After the air was allowed to escape, the peristaltic waves increased in number.

6. Repeated introduction of air and allowing it to escape was continued for five minutes, causing very vigorous movements.

7. Increasing the tension up to 30 mm., and allowing the air to escape slowly, caused rapid peristalsis, one wave every one or two seconds. The antrum pylori appeared like a corrugated tube. Ring-like movements confined to the pyloric region. Some waves were noted in the cardiac region, but no constriction. After repeated vigorous exercise, apparent antiperistaltic waves were noted.

8. Heating the air by passing it through water at a temperature of 70 C. increased the force and number of contractions.

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[35] Therapeutic Gazette, June 15, 1895; Chicago Clin. Review, January and February, 1896; North Am. Pract., February, 1899, vol. xi, No. 2, p. 65; Chicago Med. Recorder, vol. xvi, No. 2, 1899, pp. 112 and 159; vol. xviii, No. 1, 1900, p. 66; No. 2, 1900, pp. 140 and 200; International Clinics, vol. ii, 11th series; Medicine, June, 1900.

9. Passing CO_2 through the stomach with the double tube caused increase in the movements in proportion as the pressure was increased.

10. Introducing the vibratory apparatus into the stomach caused a "shattering" of the gastric muscle and increased peristalsis.

THE MATHEMATICS OF THE DIABETIC DIET.*

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There is a popular prejudice to the effect that glycosuria calls for complete withdrawal of carbohydrates. This is occasionally good practice. In the majority of cases, however, it is superfluous, and imposes unnecessary hardship on the sufferer; and in many cases it is decidedly bad practice and dangerous. This routine treatment is to be condemned on two grounds chiefly, viz., (1) because it is almost impossible to adequately nourish these patients unless the carbohydrate is replaced, bulk for bulk, by other food equivalents; (2) because the complete withdrawal of the carbohydrates eminently favors the development of acidosis, and incidentally precipitates the almost inevitable consequence of acidosis, viz., diabetic coma. I venture to say that failure to mathematically regulate the nutrition of sufferers from diabetes, in innumerable cases leads to death from slow starvation, and that complete and injudicious withdrawal of the carbohydrate elements of the food precipitates the development of coma in many cases where it could well be prevented.

In order to fully appreciate the beautiful accuracy that can be adopted in feeding diabetics, it is necessary to appreciate the significance of the laws of nutrition, as we understand them to-day. Basing on the knowledge of metabolism that has been evolved from latter-day researches in physiologic chemistry, we can almost mathematically regulate the diet in diabetes. The gratifying results obtained from this practice fully justify the pains that must be expended in studying the problem carefully in each case that comes under observation.

THE MAINTENANCE OF GENERAL NUTRITION IN DIABETES.

For measuring the nutritive value of the different classes of foods, the term "caloric" has been imported from the realm of physics. A calorie is that amount of heat that is needed to raise the temperature of 1 kilo of water 1 degree (Celsius). Each article of food, it has been found, in process of metabolism (i. e., of assimilation, oxidative disassimilation and elimination) in the body generates a definite quantity of heat, or the mechanical equivalent of this heat in labor. Expressed in calories:

1 gr. of proteid furnishes	4.1 cal.
1 gr. of carbohydrate furnishes	4.1 cal.
1 gr. of fat furnishes	9.3 cal.

It has further been determined that a normal adult requires from 30 to 35 calories a day per kilo of body weight, and that these calories can be furnished by any one or all of the three classes of food vicariously. If this caloric value is not supplied, the body must consume its own tissues, and as a result emaciates.

In the case of diabetes, with the loss of valuable unconsumed sugar in the urine, the average diet does not furnish sufficient caloric value, as may be seen from the following example that I quote from my case book:

Case 21.—Mrs. W. P. Weight 60 kilo. Calories required for adequate nutrition, 60×35=2100.

Average diet on six successive days:

Proteids	150 g. x 4.1 =	615.0 cal.
Carbohydrates	190 g. x 4.1 =	779.0 cal.
Fat	110 g. x 9.3 =	1023.0 cal.
		2417.0 cal.
Average daily sugar excretion	160 g., x 4.1 =	656.0 cal.
Resulting food value only	=	1761.0 cal.

Instead of receiving, therefore, the full caloric value required, i. e., 2100 cal., the patient, owing to the loss of sugar, only received 1761.0 cal., although the diet represents 2417.0 cal. This represents a deficit of 2100—1761=339 cal. And these deficient calories must be supplied from the destruction of the patient's proper tissues.

One can further readily calculate what proportion of this deficit is made good from the albumin of the patient's tissues, which from the fat, and the diet can be regulated accordingly. All one has to do is to determine the output of nitrogen in the urine and feces, and compare it with the nitrogen intake (food nitrogen).

This patient, for instance, received in the daily diet 150 g. of albumin, and as albumin contains 16 per cent. of nitrogen, this amount contained 24.0 g. of nitrogen. On this diet the patient excreted a daily average of 23.7 g. of N. in the urine, and of 3.1 g. of N. in the feces, making the total N. output 23.7+3.1=26.8 g. of N.

The N. output, therefore, is greater by 2.8 g. (26.8—24) than the N. intake, and this excess must have been derived from the patient's own albumin. As 2.8 g. of N. are contained in 17.5 g. of albumin ($\frac{2.8\times 100}{16}=17.5$) and 17.5 g. of albumin can produce 71.75 calories (17.5×4.1=71.75), there remain only 268.25 (339—71.75=268.25) of the 339 deficient calories to be accounted for. As these must be derived from the patient's fat, one can readily determine by dividing 268.25 by 9.3 (the caloric value of one grain of fat) that 28.8 g. of the patient's fat were consumed.

The patient, therefore, on a diet valued at 2417 calories, i. e., considerably more than the calculated value necessary to nourish a normal subject of 60 kilo (2100 cal.), lost 17.5 g. of her own albumin and 28.8 g. of her own fat.

Hence the polyphagia that is so common in this disease. The patients eat as much as a normal subject, but the diet does not adequately nourish them. "Stomach hunger" may be appeased, because the stomach is filled, but "tissue hunger" soon appears. This hunger only disappears when the meat and fat are increased.

THE BOUNDARY OF SUGAR ASSIMILATION IN DIABETES.

If it were absolutely true that diabetics could use none of the sugar that enters the blood stream, the question of feeding would be theoretically a very simple one. viz., one would have to exclude carbohydrates and replace them by meats and fats of sufficient caloric value to make up the caloric deficit.

As a matter of fact. this is not the case. Only a small minority of cases are altogether unable to utilize any of the sugar. These are the very grave cases that are, fortunately, rare, and would be still less frequent if many milder cases were not transformed into grave cases by injudicious dieting. In these patients it may be necessary to withdraw all carbohydrates for a time, but the almost inevitable result of this practice, as I will presently show, is the dreaded development of acidosis and death from coma. In the great majority of cases the patients can utilize some of the sugar, and it is absolutely bad practice to withhold this food permanently; it is equally bad practice, however, to give such cases too much sugar, for this is apt, by overtaxing of the sugar-destroying function, to "fatigue" this function and to lead to increased inability on the part of the body to utilize sugar. It is necessary, therefore, in each case, to determine the exact tolerance of the body, the so-called boundary of assimilation, and to feed the patients accordingly.

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* Read in a symposium on dietetics before the Chicago Medical Society, Jan. 20, 1904. For the other papers see The Journal, Jan. 30, p. 329.

This is done as follows: One must remember that the normal body can destroy very large quantities of sugar (and other carbohydrates). The source of this sugar is twofold. One part comes from the food; the second from the tissues of the body, chiefly the albumins, the latter, as is well known, splitting off sugar molecules in process of intracellular degeneration. Immaterial whence the sugar is derived, a portion is burned up at once, a part is stored as glycogen in the liver, muscles, glands and working organs of the organism, and a part is finally converted into fat and stored. Occasionally too much sugar enters the blood from without (but this event is rare and requires colossal quantity), so that all the sugar reservoirs become filled. Then the percentage of sugar in the blood increases abnormally (hyperglycemia) and some of the sugar is wasted in the urine (alimentary glycosuria). The same event, i. e., hyperglycemia followed by glycosuria, occurs if the powers of the organism to destroy the normal amount of sugar or to store it as glycogen or fat become insufficient. For it is clear that if less sugar than normal is destroyed or stored, it must also accumulate in the blood and appear in the urine. The latter condition obtains in diabetes.

THE THREE DEGREES OF DIABETIC GLYCOSURIA.

It is conventional to distinguish several degrees of diabetic glycosuria that vary in degree but not in kind. In the mildest kind all the sugar disappears from the urine in a few days if the carbohydrates of the food are withheld. In such cases the addition of small quantities of carbohydrate to the diet may not even cause glycosuria; as soon as more than a certain quantity (less, however, than the amount required to produce alimentary glycosuria in a normal subject) is given, sugar invariably appears in the urine. In some of the cases, further, no sugar appears if a considerable quantity of carbohydrate is given in small, divided doses, whereas the ingestion of the same quantity at once is followed by glycosuria. In these cases, then, the power to destroy sugar is by no means completely lost; for even when we withdraw all carbohydrates from the food, a certain amount of sugar (as stated in a previous paragraph) nevertheless enters the blood stream "from within," i. e., from the degradation of the circulating and organized albumin molecules that split off a sugar group. This sugar the organism can completely utilize in the mild form, and in addition it can utilize a certain portion of the food sugar.

In the severe form of diabetic glycosuria, we encounter altogether different conditions. Here the sugar never disappears completely from the urine, even if all carbohydrates are withheld for days or weeks. This indicates that not even the sugar that is derived from the intracellular disassimilation of albumin, and from the disassimilation of the food albumin, can be utilized. In extreme cases, even complete withdrawal of all food does not stop the sugar excretion, indicating that even the small quantities of sugar derived from the destruction of the patient's proper albuminous tissues are only incompletely utilized.

In still other cases, the carbohydrates must be excluded from the diet and the albumin considerably reduced before the glycosuria is inhibited. These cases properly constitute a third group, i. e., diabetic glycosuria of medium severity. The boundaries of this group are not clearly defined, and many transition forms between it and the mild cases on the one hand, the severe cases on the other, can be arranged. With proper dieting, cases of medium severity can usually be converted into the mild type; with improper dieting, they almost invariably develop into the severe type.

To summarize: One may speak of the mild form of glycosuria if the sugar excretion stops at once after withdrawal of carbohydrates, if it does not reappear when small quantities of carbohydrates are administered, and if at no time the amount of food albumin need be reduced.

One may speak of the medium form if not only the carbohydrates must be withdrawn completely before sugar excretion ceases, but the food albumin must also be reduced to such a point that less than 18 g. but more than 10 g. of N. appear in the urine.

One may speak of the severe form if, in order to stop the glycosuria, the carbohydrates must be stopped, and in addition so much albumin must be withdrawn that less than 10 g. of N. appear in the urine. Cases in which even this deprivation of food fails to reduce the glycosuria are, of course, also to be included under the severe form.

DETERMINATION OF THE DEGREE OF GLYCOSURIA.

A popular method for determining the degree of glycosuria is the following: The patient is given what may be called the "diabetic test meal." This consists of a carbohydrate-free portion and a weighed portion of some carbohydrate food. The former may be composed of meats (about 350 g.), eggs, cream, cheese, spinach, asparagus, salad with oil dressing, meat broths, tea, coffee, claret. The latter consists of 100 g. of white bread, preferably administered in two portions of 50 g. each, in the forenoon and afternoon. At times it may be necessary to administer other carbohydrate food instead of white bread, because it may be of practical importance to determine the tolerance of the organism for other starchy foods and for the different sugars.

If the patient on this diet (carbohydrate-free meal +100 g. of white bread) excretes no sugar, then we are dealing with a very mild form of glycosuria; the amount of bread should then very gradually be increased on successive days until sugar finally appears in the urine. Thus, if the patient on one day excretes no sugar after eating 3×50 g.=150 g. of bread, and on the next day passes sugar on 4×50=200 g. of bread, then the "boundary of assimilation" (see above) lies between 150 and 200 g. of white bread.

If the patient excretes sugar on the test diet, then we are dealing either with the mild or the medium form. If after withdrawal of the 100 g. of bread the glycosuria stops, then it is a mild form. If the sugar secretion still persists, then the case is medium or severe. The food albumin must now be reduced. If the glycosuria stops after the albumin is reduced to such a point that less than 18 g. of N. appear in the urine, then the case is one of medium severity. If the albumin must be reduced so much that less than 10 g. of N. appear in the urine, or if it does not stop after the withdrawal of all food, then we are dealing with a case of severe diabetic glycosuria.

I need hardly emphasize that one single determination of this kind is of little value in so chronic a disease as diabetes; consequently the above tests should be performed several times during the year. Only in this way can the success of the dietetic treatment instituted on the basis of such tests be gauged. One must, moreover, never forget that incalculable fluctuations in the sugar excretion and in the tolerance of these patients for sugar occur in nearly all the cases, and that a single determination of the boundary of assimilation may hence lead to wrong conclusions.

PRACTICAL DIETETICS BASED ON THE ABOVE PRINCIPLES.

Within the narrow scope of this article, only the broad principles underlying the feeding of diabetics can be declared. The fundamental postulate is to maintain the patient's nutrition, and this is essentially synonymous with maintaining what is called "the nitrogen equilibrium"; i. e., the N. output must never exceed the N. intake; in other words, the albumin content of the patient must be jealously maintained. The patient, therefore, must receive food that. after the deduction of the sugar wasted in the urine, allows him to utilize at least 35 calories per kilo of body weight *pro die.*

The amount of carbohydrate permitted must be determined according to the methods described above, i. e., the boundary of assimilation must be established. Theoretically, this is a very simple matter. The physiologic chemist may be guided exclusively by the results of these tests. The physician should, however, take into consideration certain clinical aspects of the question that may induce him to modify according to his best judgment the mathematical conclusions that are forced on him.

Thus, on the one hand, it may become necessary to reduce the carbohydrates considerably below the established boundary of assimilation. or even to exclude them altogether for a time, if it is found that the tolerance of the patient is growing less; if this precaution is not observed, the mild form may be rapidly transformed into a severe one. One may say axiomatically that the reduction of the carbohydrates considerably below the tolerance of the patient, places the sugar-destroying function at rest and thus enables it to regain its old power, and that inversely, crowding of the carbohydrates to the limit of tolerance engenders fatigue of the already impaired function, and hence reduces the tolerance of the organism for sugar. In addition, we know from experience that the reduction or withdrawal of the carbohydrates greatly aids in combating certain complications that may endanger the life of the patient. Occasionally these only yield if carbohydrates are withdrawn or reduced to a minimum for a time. I refer, e. g., to furunculosis, pruritus, neuralgias, retinitis, etc.

On the other hand, it may occasionally be good practice to give more carbohydrates than the mathematical tests indicate. The removal of the glycosuria is not the only aim, for the excretion of sugar is, after all, merely a symptom. True, it is our chief index of the progress or regress of the disease, and the loss of sugar constitutes the chief danger to the patient. Nevertheless, the loss of some sugar in the urine may occasionally be less dangerous to the patient than the withdrawal of all carbohydrate from the food. Rather prolong the patient's life, even though glycosuria persists, than stop the glycosuria and incidentally hasten the patient's death.

Two reasons chiefly should induce us to give carbohydrates to patients with glycosuria, even at the risk of increasing the excretion of sugar, viz.: (1) The impossibility of adequately nourishing most patients on a meat-fat diet alone; (2) the increased danger of acidosis and coma incident to the withdrawal of all carbohydrate.

A meat-fat diet would soon become utterly disgusting to a well person, and he could ill tolerate the withdrawal of carbohydrate. A diabetic, moreover, has an abnormal craving for carbohydrates, particularly bread.

Albuminous foods alone can not be given in sufficient quantities to furnish enough calories. The addition of fat may make up the deficit, but it is a peculiar fact that one can eat much more fat with relish if some carbohydrate is given. than without it; here also alcohol with its 7 calories per gram often helps out. If the patients do not relish their food, the normal psychic stimulus so necessary to normal gastro-intestinal digestion is sacrificed; the poor appetite induces the sufferer to eat too little; the perverted gastro-intestinal secretions only inadequately prepare the food for assimilation, and the inevitable result is starvation, and the development of the manifold complications incident to malnutrition.

As far as the development of acidosis finally is concerned, we know that a certain amount of carbohydrate is necessary to promote the oxidation of the members of the acetone group (oxybutyric acid, diacetic acid and acetone) that escape destruction and thus accumulate in diabetics. If all carbohydrate is permanently withdrawn, this oxidation is particularly difficult. It is a well-known fact that in diabetics the administration of a little carbohydrate will greatly reduce the acetone excretion and will often cause the rapid disappearance of oxybutyric acid and diacetic acid from the urine. Hence, in acidosis and impending coma, the administration of carbohydrates, if necessary dextrose per rectum or levulose intravenously, is good practice; and in the same sense the occasional administration of moderate quantities of carbohydrate pabulum is good preventive treatment.

The practical execution of the dietetic treatment of diabetes has only barely been touched. It is clear that much can be done for these patients, provided each case is studied with the accuracy of a metabolic experiment. The "busy practitioner" may argue that he has not the time to perform all these determinations. That may be true, but then he should not undertake to treat diabetes. Properly speaking—and the plan is gaining widespread and deserved popularity [illegible] should be treated in an institution, or should at least from time to time undergo a few weeks' observation and treatment in a hospital, where his case can be studied as outlined above.

I make an earnest plea for more careful, more mathematical regulation of the diet in this class of sufferers, and I emphatically decry the slovenly, the criminal routine habit so universally adopted in this country. of handing every patient with sugar in his urine a diet-list on which is found printed a list of articles that contain no carbohydrates.

THE RELATION OF NATURE'S PROVISION FOR HEART STIMULATION AND CONTROL TO THE USE OF CARDIAC DRUGS IN ACUTE DISEASE.

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Before plunging into the indiscriminate use of drugs which have the property of causing the heart to beat more strongly, it is well to consider what provision has already been made in the same direction by the body itself. and also what is the precise object of such intervention in a particular case.

The heart is wonderfully responsive to the demands of the body when subject to exertion or disease. In acute conditions, stimulation *in the sense of urging the heart* to expend more energy is seldom demanded except in sudden emergencies. Fever is a great heart stimulant, as is also inflammation.

The use of the term "heart stimulants" in reference to drugs that are used in the course of disease with the idea of assisting the heart and preventing the failure of its powers when they may be most needed, is a crude employment of words and has led to much misconception. Who would think of whipping a horse that was already struggling under an unusual load, or further opening the throttle of an engine when it was going too fast?

The fact is that we have but a few heart stimulants in the true sense of the word, and we hardly ever use these. The only time when drugs are used with the direct purpose of stimulating the heart is in sudden emergencies. Then we avail ourselves of the fact that many drugs which are useful as heart regulators also possess the property of temporarily stimulating the heart. The best heart stimulants, however, such as ammonia, ether and nitrite of amyl, are poor regulators, and the best regulators, such as digitalis, strophanthus and iodid of soda, are poor stimulants when quick action is needed.

The whole question of heart stimulation needs revision in its clinical aspect. A good beginning could be made if the term stimulant were dropped entirely and the idea of regulation substituted. A hundred lives are saved by the judicious control of the overstimulation which results from disease where one is saved by direct stimulation as such. The only excuse for the use of heart stimulants is that they have been misnamed and are useful as regulators.

The misconception of the importance of stimulation as an element in recovery from disease has unquestionably led to much harm. When in a very sick person it is found that the pulse is slow, reflecting only the weakness of the patient, one should rather rejoice than otherwise. Circulatory failure does not, as a rule, take place in *this direction. Primary* low arterial tension without excessive rapidity is not ordinarily dangerous if let alone. Such a heart may carry on its work successfully, while if injudiciously drugged, it may be so exhausted that if the stage of the rapid and feeble heart be reached, there may not be reserve force enough to carry the patient through the disease. I have repeatedly seen cases in which, on account of simple feebleness of the pulse in acute disease, the patient had been drugged beyond measure, with the result that the heart and pulse were showing most erratic action, but in which, the occasion for the original stimulation having passed, the withdrawal of all drugs soon restored the heart action and pulse to normal.

Failure of the heart most frequently takes place in the direction of increased rapidity. This is probably due to the failure of a very radical element in the living organism known as inhibition. In connection with the heart, *the nerves which conduct this impulse from the* great nerve centers which seem to be the center of life, are well known. The same influence in one form or another affects every organ and tissue of the body. On it depends co-ordination in every vital process. An instance of its failure to act is seen in increased patellar reflex, due to cutting of the path of connection between the brain and the muscles of the thigh.

So increase in rapidity of the heart in disease tending to dissolution is a very radical thing, and is only *successfully combated by measures influencing* vitality itself, such as improved nutrition of the whole body, improvement of the nervous system at large, and the removal of those things which are acting contrary to the interests of the whole physical economy. I can remember, as a medical student, bringing to bear, when opportunity afforded, every known heart drug in the attempt to control the rapid and feeble heart action of dying patients, and I could not understand at that time why so little was accomplished.

In acute disease, while there is life there is hope of the restoration of the patient to health, so that I strongly advocate the most strenuous efforts to the very last to avert the tendency to death; but there are certain limits beyond which drugs having a direct influence on the heart are no longer useful. If the patient is to be saved it must be done by the restoration of the inhibitory quality by measures directed to the restoration of the whole bodily economy, hence the value of strychnin, of hydrotherapeutics, of nutrition, and above all, of sleep and the removal of exhausting influences.

Interesting as they are and important, the consideration of the mechanics of the circulation must give way to the consideration of the patient himself as an individual. There is a trite saying that a man is as old as his arteries, and in acute disease it may be said, as a rule, that the heart is as good as the man.

The moral of it all is that in acute disease the question of cardiac drugs is a matter that must *not* be lightly considered. I would like to hear the views of other general practitioners on this important subject.

54 West Fifty-fifth Street.

OBSTRUCTION AND CONSEQUENT DISTENTION THE CAUSE OF APPENDICITIS,

AS PROVED BY CASES AND BY EXPERIMENTAL APPENDICITIS IN DOGS.

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We frequently find an obstructed and overdistended appendix, and the earlier in the attack the appendix is seen the more frequently is this condition observed. It is constantly mentioned by writers, and is by several connected with the production of gangrene, notably by Hartley,[1] Ochsner[2] and Hemmeter.[3] *Robert* Abbe[4] has made mention of this condition in connection with his study of stricture and recurring appendicitis. Dieulafoy[5] has said much about his theory of a closed sack and its effect in increasing the virulence of bacteria.

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[1] Hartley, Frank: Dennis System of Surgery, 1896, vol. iv.
[2] Ochsner, A. J.: Medical Standard, 1901, March to November.
[3] Hemmeter: Diseases of Intestines, 1902.
[4] Abbe, R.: Medical Record, Feb. 16, 1901.

I fail to find, however, any reference to the resulting hydraulic pressure on the blood vessels of the mucosa and submucosa and the consequent blood stasis in the inner layers of the entire wall of the distended sack. This is to me the important missing link between constriction and infection, and the point toward which this paper is principally directed.

The appendix has a firm fibromuscular wall pierced by numerous blood vessels, which ramify the submucosa and are distributed to the mucosa. The muscular coats are circular and longitudinal, and no doubt actively contract and force material from the canal (Deaver). The cavity of the appendix usually contains fecal matter and always numerous bacteria.

The blood pressure in the veins is minus, in the capillaries from 4 to 6 mm. mercury, and in the arteries 90 to 160 mm. As soon as the hydraulic pressure within the appendix or any occluded portion exceeds 6 mm., there will be more or less capillary stasis. The higher this pressure climbs the more will the blood current be interfered with, until at 90 to 160 mm. evidently complete blood stasis must follow. In the presence of the normal bacteria of the appendix, this blood stasis will be speedily followed by infection and, if complete and permanent, by necrosis or gangrene.

The obstruction in the appendix may give way, the interference with the circulation be removed, and the progress of the infection arrested at any stage. This infection will vary in degree and character according to the amount of pressure, the length of time it continues and the virulence of the organisms present. That this occlusion may be temporary seems practically self-evident when we study the pliability of the plug and the distensibility of the constriction.

Various experiments have been made by Roux,[6] Beausenat,[7] Nicolayson[8] and others to produce appendicitis in animals. However, a careful search in the voluminous literature of the subject failed to bring to light any exposition of what my own cases had led me to consider the true cause of appendicitis, and the following experimentation was begun. Dogs were selected for the experiments because they are easily obtained and handled, and because their appendices more nearly resemble the human than do those of herbiverous animals. Most of the work was done at the Hendryx Laboratory in Los Angeles, which was placed at my disposal through the courtesy of Dr. Stanley P. Black, and I feel that whatever success has been achieved is in no small measure due to his kindly suggestions and encouragement. I am also under many obligations to Dr. E. L. Leonard for her readiness to assist and for her caring for the specimens.

EXPERIMENTS.

Experiment 1.—Medium sized dog. Ether. Aseptic abdominal section. The appendix was brought up out of the incision. A silk ligature was passed by a needle around the appendix at its junction with the colon in such a manner as to exclude the principal blood vessels from its grasp. This ligature was not placed so distinctly subperitoneally as was done in the succeeding experiments, but the results showed that the circulation of the appendix had not been interfered with by it. Before this ligature was tied, an aspirating needle was passed into the colon about 1 cm. proximal to the ligature and made to enter the appendix through its opening into the bowel until its point was well within the free cavity of the appendix. The ligature was now tied with one knot just tight enough to close the appendix at its "valve of Gerlach" about the needle. The needle being connected with a reservoir, a compression bulb and mercury manometer, ordinary tap water was forced into the appendix until the manometer registered 150 mm. The appendix held about 4 ounces before that point was reached. After holding the pressure at this point for a few minutes to make certain that distention was complete, the needle was withdrawn, while at the same time the ligature was drawn tight and double tied, retaining the water at a pressure of 150 mm. The appendix was returned to the abdomen and the wound closed and sealed with collodion. After 24 hours the dog was again anesthetized and the abdominal wound opened. The peritoneum was much injected in the neighborhood of the appendix and wound. The circulation in the appendix seemed good. The color of its peritoneum was about the same as that of the colon and ileum in the near neighborhood. A decided necrosis of the tissues enclosed within the ligature placed about the appendix had taken place, and fluid was escaping from the appendix at this point. This was producing an infection and the general injection of the surrounding peritoneum. The dog was now killed and the appendix removed, together with about two inches each of the colon and the ileum. The appendix was laid open and the principal effect of our experiment was found in numerous small ulcers the size of a pinhead distributed over the entire mucous membrane, no portion the size of a centimeter square being free from them. Evidently the mouths of the glands had become infected and broken down.

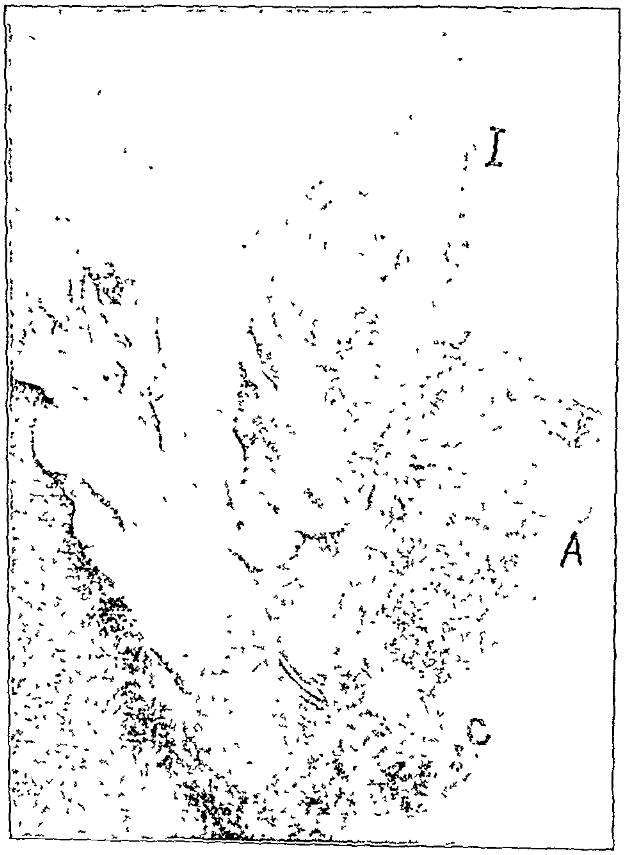

Fig 1.—Experiment 2. Specimen 2 Entire appendix inflamed and contracted I. Ilium A. Appendix. C. Colon. Photograph taken six months after preservation by Kaiserling method.

Experiment 2.—This dog was submitted to the same operation as in Experiment 1, excepting that the ligature about the appendix was passed as truly subperitoneally as possible, and 10 mm. of a broth bouillon culture of a mixture of *Bacillus coli communis* and *Streptococcus albus* was injected with a hypodermic syringe, the needle being passed alongside of the aspirating needle, used as in Experiment 1, the point of entrance being the colon and the track of the needle being closed by the ligature. This was done to insure the presence of pathogenic germs. The ligature was tied and the ends left long were passed out through the abdominal wound. The wound was now closed, two of the sutures having but a single knot so as to facilitate reopening the wound in a couple of hours. The blood tension in the femoral artery during this time was 175 mm.

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[5] Dieulafoy Pathologie interne, 1898, or Clinic at the Hotel Dieu, Paris, 1896 99.

[6] Roux: Congrès de Chirurgie, 1894 Lyon.

[7] Beausenat: (Paris) Bulletins de la Soc Anatomique de Paris, 1897.

[8] Nicolayson, J.: Nordiskt Medic Ark., Stockholm, 1901, vol. xxxiv, H. 4, No. 24.

Three hours later the wound was reopened, the appendiceal ligature pulled out and cut, releasing the appendix from its distention. All sutures were now securely tied and the wound sealed with collodion. Twenty-four hours after the operation the dog had a rectal temperature of 102.5. He was killed with ether and the abdomen opened. Typical appendicitis in an early stage was evident (Fig. 1).

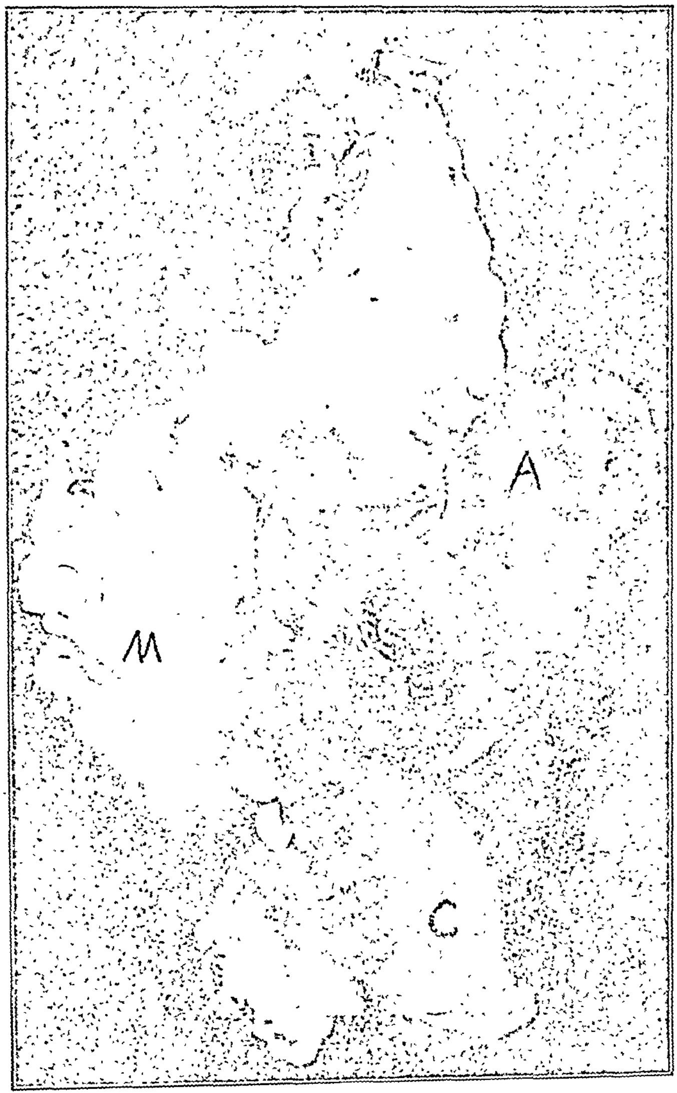

Fig. 2.—Experiment 6. Specimen 5. I. Ilium. A. Appendix. M. Mesentery. C. Colon. Photograph six months after preservation by Kaiserling method. Dark discoloration of appendix shows general inflammation.

Experiment 3.—This was the same operation as in Experiment 2, except that the distention was carried to a pressure of only 130 mm. and left for only 2½ hours. This appendix held only ¾ of an ounce. After 24 hours this dog was very lively; temperature was 99.5. There was less severe inflammation, but specimen presents just as typical a picture of appendicitis. The sphygmomanometer registered 190 on the thigh of this dog.

Experiment 4.—Simple subperitoneal ligature of the appendix without distention. No reaction in 48 hours.

Experiment 5.—Same dog as in Experiment 4. At the first operation a silk suture was simply passed subperitoneally as in previous experiments and tied tightly. The appendix at this time was 7 inches long and one inch in diameter, and considerably distended with gas. Nothing was injected into it. The day following her rectal temperature was 101 at 11 a. m. and also at 8 p. m., but she was on her feet most of the day, and did not appear ill. The morning following this, 48 hours after operation, her temperature was 99, and she was lively. The wound was reopened under ether. The appendix was collapsed and to gross appearances entirely normal. The site of the ligature was entirely covered with reparative lymph. Gas could easily be passed from the colon to the appendix and vice versa. The appendix was *again surrounded with a silk ligature* just distal to the point of the former application. The appendix was now distended to 150 mm. and left so distended, as in former experiments, for 3½ hours. After the 3½ hours had elapsed, her temperature was 97.4. The wound was again slightly opened and the appendix found still distended. The appendiceal ligature was cut and removed, and the abdominal sutures securely tied and the wound sealed with collodion. Next morning the dog's temperature was 101 and at 8 p. m. 102. At this time, 36 hours after the second operation, she was chloroformed until dead. The abdomen, opened, revealed acute appendicitis in an early stage.

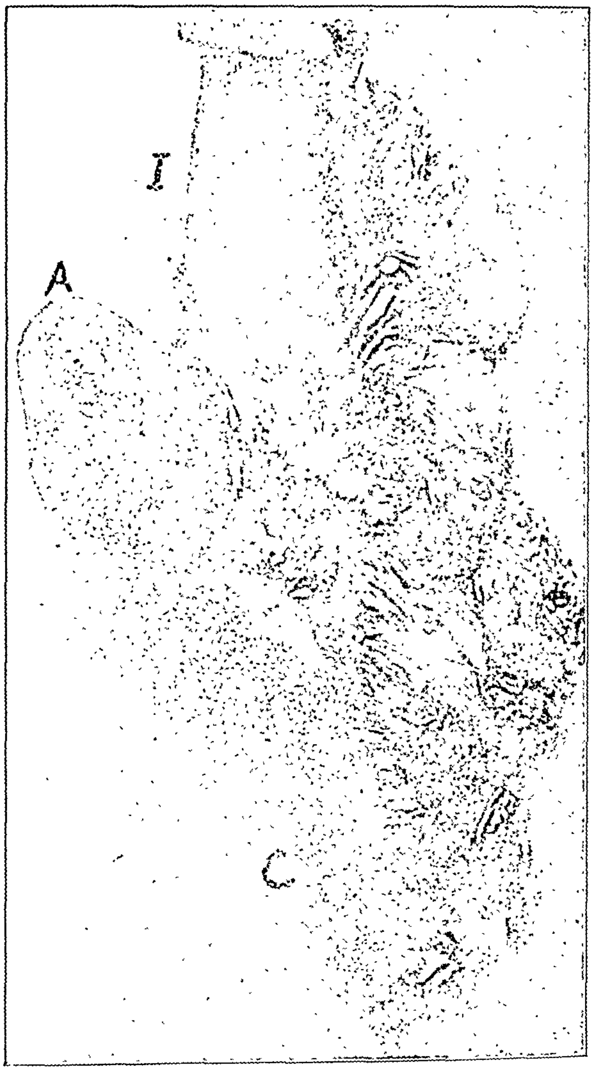

Fig. 3.—Experiment 7. Specimen 6. I. Ilium. A. Appendix. C. Colon. Experimental appendicitis. Appendix contracted by inflammation involving the entire organ beyond the ligature.

Experiment 6.—The operation was done as before, the distention pressure being 130 mm., though the ligature was not removed until after 3 hours; the pressure was probably not kept up more than one hour, judging by the actions of the dog and the collapsed condition of the appendix at the time the ligature was removed. There must have been a leak through or by the side of the ligature. After 48 hours the temperature was 102.4. Dog killed by chloroform. The appendix was found typically inflamed and contracted with numerous adhesions to the intestines and omentum (Fig. 2).

EXPERIMENT 7.—Simple distention of appendix after ligature to 130 mm. for 2½ hours. Result, appendicitis (Fig. 3).

EXPERIMENT 8.—Injection of 10 mm. of culture *Bacillus coli* and *Staphylococcus albus* without distention. No reaction.

EXPERIMENT 9.—Appendix ligated and distended to 100 mm. and left 48 hours. Result, severe appendicitis.

EXPERIMENT 10.—Distention to 75 mm. Ligature. After 8 hours the wound was reopened and the appendix found collapsed, congested and inflamed. The ligature was not molested, but the appendix returned to the abdomen and the wound closed. Twenty-four hours after the operation the temperature was 99.5. The dog was killed with chloroform, and abdomen opened. The appendix was imbedded in a mass of adhesions by an inflammation of which it was itself the center. Its serous membrane was red, congested and inflamed. It was contracted down on a hard fecal mass plainly felt through its walls like a fecal concretion. Laying it open, it was evident that the ligature had cut into the tissues of the wall of the appendix sufficiently to allow the opening into it to become patulous, though not cutting quite through the mucous membrane. The fecal mass previously felt now showed itself a hard dry lump composed of the compressed feces present in the appendix on the previous day when the ligature was placed (Fig. 4). It illustrates well the origin of the fecal concretion as I have outlined it elsewhere. The contracting appendix had driven off all the fluid into the colon. We need only to imagine more time—days, weeks, months, years—and the decomposition of the organic matter in this mass and the addition of more material from time to time would do the work of forming a concretion.

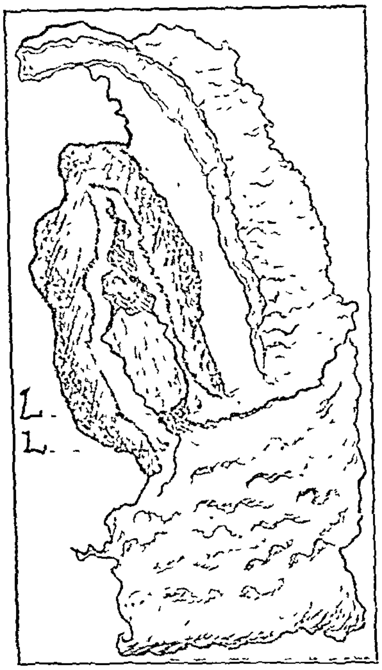

Fig. 4.—Experiment 10 Specimen 8. Ilium and colon laid open. Appendix inflamed and contracted, showing fecal ball held by constriction at site of ligature. Divided ends of ligature indicated at L L.

These ten experiments may be divided into the following five groups:

Group 1. Attempted permanent subperitoneal ligation of the appendix with distention to various degrees of pressure. Experiments 1, 9 and 10.

Group 2. Temporary subperitoneal ligation of the appendix with distention to various degrees of pressure. Experiments 5, 6 and 7.

Group 3. Temporary subperitoneal ligation with distention and injection of cultures of pathogenic germs. Experiments 2 and 3.

Group 4. Simple subperitoneal ligation of appendix. Experiment 4.

Group 5. Simple injection of cultures of pathogenic germs into the lumen of the appendix. Experiment 8.

Group 1 was done with the object of testing the possibility of inducing appendicitis in dogs by distending the appendix and producing a pressure within it equal to or just exceeding that of the arterial supply of the appendix. The normal blood pressure in the large arteries in dogs ranges from 90 to 160 mm., being about equal to that in the human being. Aiming as near these figures as possible, we applied 150 mm. pressure to the first case, 100 in Experiment 9, and 75 in Experiment 10. The attempt was made in this group to retain these pressures permanently. In this we failed in each case, because after a few hours the ligature had cut through enough tissue to allow a leak to occur and thus to relieve the tension. A permanent occlusion ought to produce a perforating or gangrenous appendicitis, but on account of this cutting of the ligature the manner in which this process in the human appendix can be imitated is very difficult. However, this demonstration is not very important, since if our results after temporary occlusion can be accepted as demonstrating the cause of mild appendicitis the frequency of permanent occlusion in the human appendix is sufficient demonstration as to the cause of the perforative and gangrenous cases.

In Group 2 pressures were induced in Experiment 5 of 150 mm.; Experiment 6, 130 mm.; Experiment 7, 130 mm., and the ligature removed in two and one-half to three hours. The resulting inflammation in all these cases, as well as in those of Group 1, demonstrated that infection will take place promptly from the pathogenic germs present, even in the healthy appendix of a dog, if that appendix is subjected to an intra-appendicular hydraulic pressure equal to or slightly exceeding the blood pressure in the arteries, even if this pressure is maintained for only a short time. The weight of these demonstrations is enhanced by the striking identity of the picture of these results and those of ordinary acute appendicitis in a correspondingly early stage, as we see it daily in the operating room.

In Group 3, cultures were introduced to make certain that the appendix contained pathogenic germs, for manifestly that is the all-important factor in any infection. The result was a slightly more severe type of inflammation.

In Group 4, Experiment 4 was done in the hope of obtaining a permanent occlusion and subsequent filling up of the appendix from the retained secretions. The uselessness of this attempt is now very evident on account of the cutting of any ligature placed for this purpose.

In Group 5, Experiment 8 was done as a control of 2 and 3 to show that simple injection of virulent germs into the appendix does not produce infection. This is in line with some of the experiments of Beausenat and of Roger and Josue,[9] who report the same failure of results.

Let us compare this view of the cause of appendicitis with those most commonly accepted. Anything like a complete review of the literature on the subject is out of the question here. The articles written about appendicitis number up into the thousands. Dr. J. B. Murphy[10] summarizes the etiology as follows:

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[9] Roger and Josue: Rev. de Med, Paris, 1896, vol. xvi.

[10] Murphy, J. B.: Practical Medicine Series, November, 1902.

> We are agreed that the etiologic factors of appendicitis are:
>
> 1. A local irritation caused by a foreign body, as a fecal concretion, a catarrhal congestion of the appendix due to the conditions which produce similar changes in the neighboring bowels, stercostasis in the appendix, traumatism, etc.
> 2. The inoculation on this abraded mucosa of pathologic flora as the staphylococcus, streptococcus, pneumococcus or colon bacillus.
>
> The consequences of this infection are the many pathologic conditions which are present in acute inflammatory process.

This fairly represents the consensus of opinion on the matter as I read the voluminous literature on the subject, but that it is not a fully satisfactory explanation is shown by the multiplicity and variety of other explanations offered. A list of thirty-nine different explanations was compiled during our search of the literature.

This theory seems to overlook the difference in character of the infection here and in any other part of the alimentary canal.

To produce a necrosis, an infection must be so severe as to produce cell necrosis by the character or virulence of the germ, or it must continue long enough to accumulate inflammatory products which by pressure on the blood vessels produce the necrosis (Senn). Neither of these conditions prevails in appendicitis.

The striking tendency to necrosis and gangrene early in appendicitis point to a mechanical interference with the blood supply. Nearly all pathologists speak of the changes in the blood vessels. I need mention only Fowler, Deaver and Ochsner.

To establish the universality of the two essential factors, the constriction and the occluding mass, may be difficult from the data now on record, but the constant reference to them by writers and the prominence they have maintained in the discussions of the cause and pathology of the disease, speak for their frequent, if not for their constant, presence.

I have never seen an appendix which presented evidence of inflammation, past or present, which did not present a constriction in some part of its lumen. A very slight narrowing may be sufficient to moderately distend the appendix for a short time. A hard fecal mass may be a long time passing a bend or kink in the lumen. These irregularities increase as bowel contents enter and are forced out. The recurring distention tends to produce pouching beyond anything acting as a constriction, a kink or bend, a short mesentery, etc. This is explained in detail by R. Abbe.

The frequency of the obstructing body has been the subject of much more study. Aside from soft or firm fecal matter, which must be conceded to be always possibly present, the prevalence of foreign bodies and fecal concretions is common knowledge.

Mitchell[11] collected 1,400 cases from various sources in the last ten years and found about 7 per cent. of true foreign bodies; while in 700 of these cases, in which a definite statement was made as to the nature of the foreign body, there were 45 per cent. of fecal concretions. Fitz, in 1886, collected 152 cases of perforative appendicitis and found 12 per cent. foreign bodies, with 47 fecal concretions. Talamon, 760 cases, 450 foreign bodies or concretions, nearly two-thirds of the cases. Hartley adds: "Is it unreasonable to assume that the other third had escaped into the colon after temporarily obstructing the lumen?"

However, a concretion is not essential. Any fecal mass may become sufficiently firm to be packed into a constriction and temporarily occlude the lumen. Such an obstruction will the more easily give way because it is pliable. Beside, there are putrefactive changes always going on in it, favoring the giving way of the obstruction once the valve is closed.

The determination of the source of the fluid with which the appendix is distended is an interesting and important problem. Much of it and sometimes all of it must come from the effusion into the canal from the engorged blood vessels of the mucosa, together with the secretions from the glands.

Hemmeter says: "If the obstruction is complete, abundant secretions accumulate and are readily decomposed in the presence of numerous putrefactive bacteria. The walls of the appendix are excessively distended and the mucous membrane is strongly irritated, both mechanically and chemically."

Blood is pumped into the appendix under a pressure of 90 to 170 mm. The capillaries and veins are compressed against the fibromuscular walls, and in whole or in part occluded. The blood stream is slower than normal and effusion must take place. With every drop of effusion the intra-appendicular pressure rises and the occlusion of the blood vessels becomes more complete. This process continues until the pressure in the arteries and in the canal of the appendix becomes equalized. Blood has been pumped into the appendix, but was prevented from escaping through its ordinary channels, and must be retained there. Formation of gas in the appendix may add materially to the degree and rapidity of the distention.

The sudden onset of many acute cases, such cases so often referred to as due to trauma, an acute indigestion, violent exercise or constipation, seems to indicate that at times at least the initial distention is produced by a sudden increase of pressure in the colon, forcing an unusual amount of fluid into the appendix, which is held there by the fecal mass or concretion suddenly rebounding, closing the ball valve. The ease and perfection with which this maneuver may be carried out with the appendix shown in Figures 5 and 6, is confirmatory of this idea. Once the occlusion established, the previous process of effusion continues to increase the pressure.

The following cases illustrate this sequence—constriction, obstruction, distention, pressure on blood vessels, infection, and gangrene and perforation:

Case 1.—E. R., male, aged 22. Taken suddenly on the evening of March 24, 1903. Kept in the house the 25th and went to bed that afternoon. Pain quieted down that evening and was very moderate all the next day. That day he attended a picnic, and, being an athlete, he did considerable jumping. Came to me that midnight with severe pain. The morning of March 27 pain very slight, but decided tenderness on pressure. Operation 10 a. m., 60 hours after onset, 20 hours after last exacerbation. Appendix found distended to an extreme degree, "as full as it would hold." "Feared it would pop open before it could be removed." Closely examining it after removal one easily caught the greenish tinge of approaching gangrene of the entire organ. A concretion the size of an orange pit was easily palpated, blocking a tight constriction, at the proximal end. Pushing this back released the fluid and the tension was immediately relieved. Infection had not extended beyond the walls of the appendix. The patient made an uneventful recovery.

I used this appendix in my first experiments on this subject, as shown in the illustrations (Figs. 5 and 6). It was possible, with the aid of the bulb syringe, to distend it fully and, the valve closing, this tension was maintained by the recoil of the fluid on the concretion, forcing it into the constriction, the ball valve causing appendicitis.

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[11] Mitchell, James F., The Johns Hopkins Hospital Bulletin, Baltimore, 1899, vol. x.

To my mind, the life history of that appendix was as follows: At birth the appendix was slightly club-shaped. The lumen was a trifle narrower at the juncture with the cecum than at some point distal to it. For years fecal particles accidentally passing into it would be easily expelled, as the constriction was so slight as to offer no real impediment to its exit. In time a little accumulation of fecal matter occurred and slightly distended the walls until it took some effort on the part of the appendix to expel it. Repeated occurrences of this kind developed an increasing distention of the appendix and a relative narrowing of its lumen at its already narrowest point. In time the passage of such a fecal bolus irritated the mucous membrane at the narrowed point—perhaps by stretching and causing microscopic injury. Slight local infection and resulting inflammation contracted the lumen at this point and produced a more decided constriction. This constriction following mild inflammation of the appendicular mucosa, was studied and described by R. Abbe.

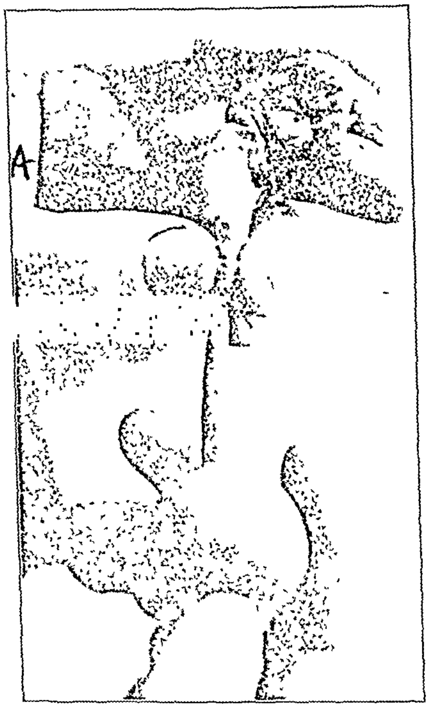

Fig. 5.—The "ball valve" action of a concretion causing appendicitis. The appendix ready to be filled from the bulb.

A repetition of this process continued until the constriction presented a decided obstacle to the exit of fecal contents. The fluid portion of the bolus was, however, constantly expelled or absorbed. Inorganic matter remained as the principal constituent of the mass, which constantly grew by accretion, and a fecal "concretion" resulted. It may have been so much reduced in size during a period of time when little or no fresh mass was forced into the appendix that it easily escaped into the colon without producing a symptom. More than likely, however, at some time it caused enough obstruction to its exit to produce an occlusion. Distention with fluid followed, partly perhaps by some sudden increase of intracolonic pressure forcing it into the appendix—the concretion or fecal mass dropping into the constriction and retaining the fluid there as would a ball valve. At any rate, the secretions from the mucosa being prevented from leaving the closed cavity accumulated, whether the initial distention came from the colon or not. The increasing pressure, the appendicular contractions, the distensibility of the constriction, and, if still pliable, the molding of the mass, one or all of these factors caused the obstructing body to pass the constriction in a short time. Meanwhile, the capillary and venous circulation had been compressed, and more or less bacteria had gained entrance into the tissues, causing more or less infection and inflammation. Some bacteria entered through follicles unduly opened by the distention and others through microscopic traumatisms, but the important condition which allowed infection to occur was that the tissues were temporarily deprived of their life fluid, the blood, without which no tissue can long withstand the attack of its germ foes. The result of this temporary obstruction in the appendix was a mild attack of appendicitis,

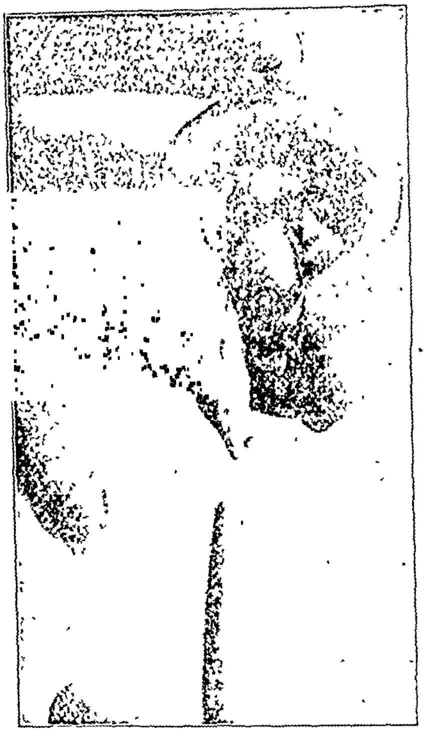

Fig. 6.—Same as Figure 5, filled and with the "ball valve" closed, retaining the fluid under pressure.

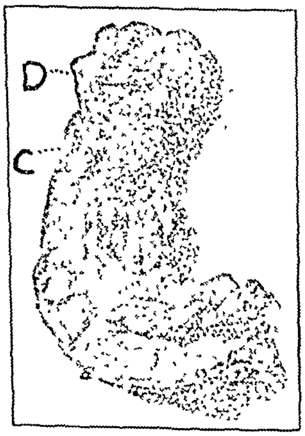

Fig. 7.—Specimen from Case 2. Distal extremity dilated (D) beyond constriction (C). *Concretion occupied dilated portion.*

producing so little pain and discomfort that it passed unnoticed or as a colic or as a bilious attack. Patient remembers long nights with "stomachache" when a boy, even when a student in the high school. Some of these were probably mild attacks of appendicitis and may have been repeated a number of times.

Coming now to the time of his final attack, the constriction and the concretion were there as demonstrated by the specimen. The history of their production I have attempted to sketch. On Tuesday evening the "ball valve" was closed, accidentally (?). It may have been from increased intracolonic pressure or by his position at night the concretion may have dropped by gravity into the constriction and the secretions accumulating behind it held it there firmly. The valve once closed and the fluid accumulating behind it, more and more pressure on the blood vessels of the mucosa and submucosa followed, and some infection became established. During Wednesday the valve must have been opened by the concretion falling back into the appendix, or by some misfit it was allowed to leak a trifle at a certain pressure for the patient had comparatively little pain that afternoon and night. The next morning (Thursday) he felt well enough to attend a picnic with some of his pupils. Being of an athletic turn, he engaged in various feats of rowing, running and jumping, and even cleared a table at one bound. His pain had been slight during the day, though always present, but after this last feat his pain increased decidedly. What better explanation can be offered than that with this extra muscular effort there was unusual compression of the colon, fluid was forced into the appendix under great pressure and the valve again closed, this time for good? The pressure on the blood vessels and effusion began at once and continued until the pressure in the lumen of the appendix equaled that in the arteries, as already described. Pain increased until midnight, by which time the obstruction to the arterial blood current had become complete and gangrene began. From this time on the pain subsided, as the nerves producing it gradually succumbed to the advancing gangrene.

The intra-appendicular pressure, once established, must of necessity be maintained until something gives way. A greater distention of the walls will only allow a little more fluid to enter from the arteries. Had the constriction been less firm or the concretion smaller or more easily molded, it might have been forced open, as it had perhaps done before or as it undoubtedly often does even at such a late hour that complete gangrene of the appendix is already established, and at operation we find the gangrene, but the concretion has passed out of sight into the colon, the obstruction is gone, and we wonder at the wonderfully acute infection which in twelve to thirty-six hours produces gangrene of the entire appendix. Ochsner reports such cases as I have already mentioned.

Case 2.—M. V. Z., aged 15. Since February, 1899, she had three or four mild attacks of typical appendicitis. Each time the pain came on suddenly and left suddenly within a few minutes or hours, leaving only a tenderness in the region of the appendix for one to four days. The last attack occurred about Jan. 1, 1902. The pain came on suddenly, was severe, but subsided after about 45 minutes. After that there was decided tenderness to pressure and slight tenderness when turning about, but no further decided pain. The temperature reached 100 within the first few hours, but did not exceed the normal point after that. In three days she was perfectly well. Three weeks later, January 25, the appendix was removed, and is shown in Figure 1. The constriction was found about one inch from the distal extremity. The distended cavity beyond was entirely empty, as shown in the cut. That cavity must have contained a concretion or fecal mass. The cavity became suddenly distended, the constriction obstructed, and the pressure on blood vessels and nerves decided. Fortunately, the obstruction was forced out through the constriction before serious infection or gangrene had time to develop. Some infection had taken place, however, as the clinical history and the pathology of the specimen are evidence of a typical so-called catarrhal appendicitis.

Case 3.—Miss C. F. B., aged 24. I saw the patient at 4 p. m. Sept. 16, 1903. During the preceding night she had been taken with pain, which had gradually increased in severity. Operation was advised, and was begun at 10 p. m. The appendix was found fully distended and omentum slightly adherent, especially at the distal end. Removing the adhesions revealed two dark gangrenous spots. The degree of distention in this case was an interesting study. I know of no way to measure or record it. But having just recently completed my experiments on dogs I had some idea of pressure measured by the manometer, and I do not hesitate to say that it exceeded 100 mm. and, perhaps, 150, at least enough to seriously interfere with the blood supply. The concretion and stricture which caused the obstruction were situated about midway between the point and the proximal end of the appendix.

These cases are just such as are constantly seen in the operating room, and are cited simply to show how their history, especially of pain, fits into this view of the pathology. Had Cases 1 and 3 been left until perforation had taken place, all evidence of the actual cause of the appendicitis would have disappeared and the blood vessels would have given no account of the force which had compressed them. Thrombi would have been present in their lumen, but this simple mechanical explanation of their production would have passed out of evidence.

Appendicitis must be looked on as at first a true strangulation—pressure on the blood vessels. This theory explains the suddenness of the onset, especially if we allow that the first distention and closure of the valve is produced by increased colonic pressure. The sudden cessation of acute pain so often observed is explained by the giving way of the obstruction and the gradual cessation of pain by the advent of gangrene.

The severity of the pain (if only we could measure it) and the length of time it continues should be a valuable indication of the severity of the inflammation likely to follow, especially if it comes suddenly and leaves suddenly. If the initial pain of appendicitis is due to a simple infection, why does the pain so frequently subside after a few minutes or hours while the infection continues to extend? In this connection a sharp distinction must be made between pain and tenderness. Pain before the inflammation has extended to the peritoneum (usually eighteen to forty-eight hours) means distention still present, especially if accompanied by colic, which means attempts at extrusion and peristalsis extending to the intestines. Tenderness before the peritoneum is involved without decided pain (a condition so common after a few hours, three or four, to twenty-four or forty-eight) is evidence of congestion or inflammation confined to the appendix. The recurrence of pain after this lull is almost invariably rupture and extension to the peritoneum. The careful study of the history of pain and tenderness in any case furnishes the most important evidence we have of the exact conditions present.

If appendicitis is at first strangulation, the importance of early operation, before the inflammation reaches the peritoneum, can not be too strongly emphasized. In some cases the evidence of the early giving way of the obstruction may be sufficiently positive to admit of a diagnosis to that effect and an assurance of a mild attack that will not require an operation until "the interim." But this decision must rest on the most positive evidence after a painstaking study of the history and present condition of the patient. With such positive evidence furnished by Case 2, I believe that plan justifiable. But when in doubt, operate before perforation has taken place.

CONCLUSIONS.

1. Simple infection does not account for the suddenness of the attack nor early severity of the pathologic changes in acute appendicitis.
2. The evident interference with the blood supply is best accounted for by an increased intra-appendicular pressure.
3. Simply injecting bacteria into the appendix will not produce appendicitis unless used in abnormal amounts and virulence.
4. Subperitoneal ligation of the appendix with a simple ligature without distention can not be made sufficiently permanent to produce a general infection of the appendix, typical of appendicitis in the human being.
5. Experiments in dogs show that hydraulic pressure equal to the arterial tension maintained within the lumen of the appendix for a short time is promptly followed by typical appendicitis.
6. The blood supply in an extremity may be cut off with impunity for hours; but in the appendix the ever-present bacteria at once begin an infection, their entrance into the tissues being facilitated by the opening of normal and traumatic avenues by the very distention which cuts off the circulation.
7. The importance of making a complete diagnosis and prognosis during the first twelve hours of the attack is emphasized.
8. This study suggests the possibility of infections or other lesions being produced in other hollow viscera, especially in the gall bladder, the stomach and intestines by temporary overdistention.

Clinical Reports.

LEUKEMIA.

REPORT OF A CASE SYMPTOMATICALLY CURED BY THE X-RAY.

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Introduction.—A case of splenomedullary leukemia successfully treated by the use of the Roentgen ray is reported by Senn.[1] In looking up the literature at my disposal, which includes the *Index Medicus*, I fail to find any further reports of cases thus treated.

At the time of the appearance of Senn's report, the patient, whose history I give below, had been under *x*-ray treatment for seven weeks.

From the time of the first recognition of this disease a fatal termination has always been expected, yet it is known that occasionally recovery occurs, or there is an apparent arrest, either spontaneously, or after the use of arsenic; hence in recording the effect of any treatment of leukemia the word "cure" must be used with caution. Although an examination of my patient to-day would show an entire absence of every symptom of the disease, both by physical and blood examination, where seven months ago a most pronounced case existed, yet only time will show the permanency of the result.

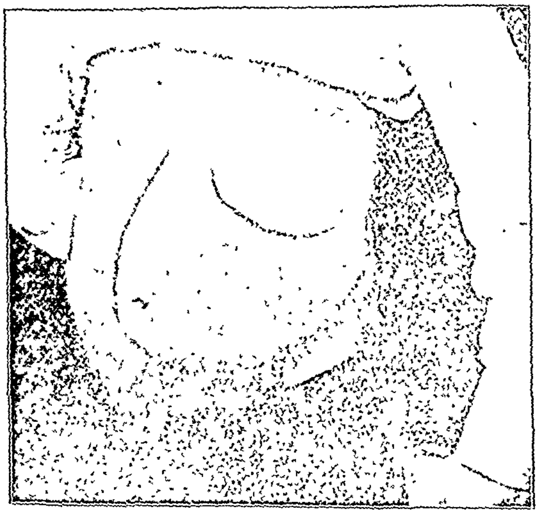
I submit this as a preliminary report, and will later collect other cases so treated, and will give a more detailed history of this one, with charts and plates showing the blood findings.

Patient.—W. E., male, American, aged 30, a cigar maker, unmarried; was first examined July 1, 1903. His family history is negative, except that one sister has had tuberculosis.

History.—The patient has lived in Decatur all his life; his habits have been good, he does not use alcohol, but he is a moderate smoker. He has had the usual diseases of childhood, with good recovery in all. No history of malaria or syphilis.

Present Trouble.—The patient came to the office complaining of weakness, pain in the back and a feeling of weight and distress in the left side. Two years ago he had a fall, alighting on lower ribs of left side, which compelled him to stop work for two days. He has had a slight cough for some time. For six months he has been troubled with palpitation, dyspnea and slight headaches. Lately he has noticed that his shoes fit tighter at night. He becomes very weak on exertion.

Examination.—The patient is moderately well nourished, but has a somewhat cachectic appearance. His present weight is 169 pounds, which is his average summer weight; his expression is depressed; mind clear; frame medium sized; musculature soft; panniculus thin. He is slightly anemic. The visible mucous membranes are of fair color; tongue is moist. There is slight edema of ankles and legs. The lymphatic glands are not enlarged, but the inguinal glands are easily palpated. The thorax is of good size and symmetrical; expansion fair. On percussion, one finds good resonance, the lower lung boundaries normal and descending well; heart sounds are normal; the liver dullness extends to the edge of the ribs, and its thin edge is easily felt. Splenic dullness begins on the seventh rib in the mid-axillary line and extends two fingers' breadth below the navel in the left mammary line. To the right it extends one finger's breadth beyond the median line. On palpation the spleen is a hard, smooth, thick mass. No notch can be felt. The radial pulse is easily compressed, is moderately full and regular, with a rate of about 90. Temperature is 99.



Splenomyelogenous leukemia. Photograph showing size of spleen before treatment and after four months' treatment.

Examination of Fluids.—The urine gives a slight precipitate with heat and acid, and a few hyaline casts are found in the sediment. The blood examination, made by my associate, Dr. C. M. Jack, is as follows: Red blood corpuscles, 2,600,000; leucocytes, 800,000; hemoglobin, 65 per cent.; specific gravity, 1,050. On staining with Ehrlich's triple and Janner's stains, the reds show a slight paleness, slight poikilocytosis and many nucleated forms. The differential count of the leucocytes gives: Polymorphonuclear, 40 per cent.; myelocytes, 40 per cent.; eosinophiles, 8 per cent.; large mononuclear with basophilic granules, 8 per cent.; degenerates, 4 per cent.

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[1] New York Medical Record, Aug. 22, 1903

Clinical Diagnosis.—Splenomyelogenous leukemia.

Treatment.—The patient was informed of his condition and advised to stop work. I gave arsenic and iron internally and *x*-ray treatments to the splenic region twice a week.

Course.—After one month the patient seems improved; feels stronger, and his appetite is better. On examination the spleen is apparently smaller, the right edge extending only to the sternum and the lower edge on a line with the navel. The ankles are still swollen, but the blood shows a marked decrease in the number of leucocytes with a slight increase in the red blood corpuscles and in the amount of hemoglobin. Blood smears show an apparent increase in the transitional forms with decrease of myelocytes. The normoblasts are markedly increased. Differential counting is unsatisfactory owing to the large number of forms lying on the borderline between the myelocytes and transitional forms. The urine still contains a trace of albumin.

September 1: The patient has returned to work. His general condition is improved; appetite good, with a gain in weight. The spleen has decreased in size and a notch is felt for the first time. Edema of ankles is less. Blood: leucocytes decreased to 58,000, with an increase in the red blood corpuscles to over 3,000,000.

Encouraged by the results of treatment, which had varied very little in the last two months, and by Senn's article which appeared at this time, it was decided to discontinue the iron and arsenic and to increase the frequency and distribution of the *x*-ray exposures. These treatments were now given daily to the splenic region, the ends of the long bones, and to the sternum. In place of the iron and arsenic, one grain capsules of quinin, three times a day, were given as a placebo.

October 4: The patient has not missed a day's work in the last month. The blood shows an increase in the number of leucocytes; the number of red blood corpuscles and the amount of hemoglobin, however, still show an increase. The spleen can be pushed to the edge of the ribs. An *x*-ray dermatitis of the splenic region has appeared once or twice, the outer layers of the skin desquamating, but by discontinuing treatment for a few days and using a dusting powder, no bad results have followed. The skin over the exposed surfaces was rough at first, but after exfoliation has become smooth again. The hair and pigment have disappeared from the parts exposed.

November 9: Blood: leucocytes, 129,000; red blood corpuscles, 4,124,000; hemoglobin, 85 per cent. Very little variation in size and shape of the red blood corpuscles and no nucleated forms were found. Myelocytes, 25 per cent.; polymorphonuclear, 60 per cent.; eosinophiles, 5 per cent.; small lymphocytes, 1 per cent.; degenerates, 3 per cent.

December 6: Leucocytes, 44,360; red blood corpuscles, 4,360,000; hemoglobin, 85-90 per cent.; myelocytes, 20 per cent.; polymorphonuclear, 74 per cent.; eosinophiles, 1 per cent.; small lymphocytes, 2 per cent.; degenerates, 3 per cent.

January 9, 1904: Leucocytes, 17,825; hemoglobin, 90 per cent.; red count not taken. Myelocytes, 8 per cent.; polymorphonuclear, 88 per cent.; basophiles, 2 per cent.; small lymphocytes, 4 per cent.; degenerates, 1 per cent.

February 13: Leucocytes, 10,980; red blood corpuscles, 4,600,000; hemoglobin, 90 per cent.; polymorphonuclear, 86 per cent.; small lymphocytes, 8 per cent.; basophiles, 1 per cent.; transitional forms, 2 per cent; degenerates, 3 per cent. The albumin has entirely disappeared from the urine. The patient's weight to-day is 182 pounds, more than he has ever weighed before. Spleen can only be felt on deep palpation and on deep inspiration. Treatments are now reduced to every other day, the patient taking long walks on the intervening days.

February 20: Leucocytes, 7,894; red blood corpuscles, 4,690,000; hemoglobin, 95 per cent.

The accompanying table shows the remarkable reduction of leucocytes. It shows the first reduction when patient was taking both the arsenic and *x*-ray treatment, then the increase in the white cells when the arsenic was discontinued and the subsequent decrease to normal after *x*-ray treatments were given alone.

	LEUCOCYTES.	TREATMENT.
July 1	800,000	Arsenic and *x*-ray.
Aug. 1	160,000	
Sept. 1	58,000	X-ray alone. Arsenic discontinued.
Oct. 4	106,000	X-ray alone, daily treatments.
Nov. 9	129,000	
Dec. 6	44,000	
Jan. 9	17,825	
Feb. 13	10,980	
Feb. 20	7,894	

A CASE OF PSEUDOLEUKEMIA SUCCESSFULLY TREATED WITH *X* RAYS.

OSCAR W. STEINWAND, M.D.
Member American Association for the Advancement of Science.
SELMA, CAL.

Patient.—Miss L. N., aged 15, school girl. Family history: mother died from heart disease two years ago; father well; 3 brothers, 2 well, 1 has chronic stomach trouble; 3 sisters, all well. No tubercular or syphilitic history.

History.—About five or six years ago she noticed that the glands on the left side of the neck became enlarged, but not painful. During the succeeding three years they increased slowly but gradually, and there were occasional sharp pains on left side of abdomen (site of spleen). These were of a lancinating character and of momentary duration. Certain nervous symptoms made their appearance: inability to concentrate her thoughts on her studies, sleeplessness and pains in her legs, the latter causing some unsteadiness of gait. Her disposition likewise suffered, changing from a bright cheerful tone to one, at times, bordering on melancholy. Two years ago the glands along both borders of the sternocleido muscle began to coalesce and to make more rapid progress in size. The supraclavicular glands also became prominent, and in due time also the axillary glands were involved.

The patient came to me for treatment April 1, 1903. She presented all the symptoms above enumerated, with rapidly increasing nervous phenomena and steady loss of weight. All the treatment she had received had had absolutely no effect toward checking the disease. There had not been any definite diagnosis. Some had suggested entire removal of the diseased glands, but her parents would not consent.

Examination.—There were large glandular masses on the left side of the neck, anterior and posterior to the sternocleidomastoid muscles, the larger ones about the size of a hen's egg. They were movable under the skin, but bound down more or less to the deeper structures. The supraclavicular and epitrochlear glands were likewise affected.

The spleen was somewhat enlarged and tender to pressure. Temperature was 100 to 101 degrees. The hemoglobin index was 70 per cent. The differential leucocyte count was negative. I failed to make a blood count. The pulse was 115 to 120. At no time did I detect the temperature lower than 100 degrees or the pulse rate less than 102.

Treatment.—Under the use of Fowler's solution for three weeks the patient rapidly grew worse. April 20 I advised the use of the *x* rays, and gave the first exposure, eight inches from the surface of the neck. The neck measured 13½ inches over the most prominent portion. I made one exposure each day, of a duration of fifteen to twenty minutes. After the exposure on the second day, the patient complained of feeling much worse. The temperature now registered 104.5, the highest it had been at any time. The following morning it was again 102, and remained so until one-half hour after the exposure in the afternoon, when it reached the same mark as on the preceding day

Thinking there might be some latent malaria, I examined the blood, with negative results, and administered 12 grains of quinin per day for four days, but without any effect whatever. After the third exposure, splenic tenderness was greatly increased, so that gentle percussion caused considerable pain. The patient now felt so miserable (to use her own expression) that she kept her bed all day except at the treatment hour.

April 24 her neck measured 12½ inches and had visibly decreased in size. Two days later it measured 12 inches. The temperature was 103, the pulse 115.

April 27 I commenced giving Fowler's solution as a general tonic. On April 29 I stopped the quinin. The patient was feeling somewhat better and more cheerful. On April 30 the neck measured 11¾ inches. The supraclavicular glands were much shrunken and becoming hard, nodular and more freely movable under the skin. Temperature was 100, pulse 100.

May 1 I stopped *x*-ray treatment, as there was some evidence of burning. On May 5, temperature was 98.4; pulse 100, this being the first time I found temperature normal in three months' observation. The *x*-ray burn was now very evident, being of oval shape, about 2 inches wide by 4 inches long, with desquamating surface. There was some burning and itching, with alopecia on that side of the head. She felt much better and had gained four pounds in weight. The glands felt much harder and more nodular, and were loosening from the deeper structures. The pains in the legs had disappeared, but the knees still felt very weak when she stood any length of time. All nervous symptoms, tremor, etc., have disappeared.

May 12 the *x*-ray dermatitis was fully developed, and the skin was sloughing in places. The area of alopecia was somewhat increased. She had a keener appetite. The weakness in the knees had disappeared and she gained 2 more pounds in weight. The bowels had become regular. The temperature was normal and the tongue clear.

May 28 the *x*-ray burn showed signs of healthy granulations, and on June 3 skin grafts from the thigh were applied to the denuded area under medullary narcosis, which proved to be a very efficient and convenient anesthetic.

June 6 all grafts had united and the inflammatory condition subsided.

July 24 the glands were still receding, and the neck measured 11 inches. The contour fairly matched that of the opposite side. She stated that she felt in the best of health, and her appearance fully bore out her assertion.

Apparatus and Technic.—The current I obtained from a 16-plate static machine driven by hand. I used a Gundlach tube, taking a 4-inch spark gap. The target of the tube was placed 18 inches from the patient, with one treatment of twenty minutes' duration each day for the time stated.

Comments.—As treatment progressed, the spleen increased in size. This phenomena was noted by Senn in The Journal, but I have not seen any mention of the distinct rise in temperature after each treatment, encountered in this case. The only explanation that I can offer is that there must have been certain toxic products, liberated through the influence of the *x* rays, which were at once taken up by the circulation, causing also the acute exacerbations of ill feeling following each exposure. This condition of elevated temperature and ill feeling lasted from ten to fourteen hours, and was so severe at times that we both thought of abandoning treatment had it not been for the steady reduction of the size of the glands.

Present Condition.—At the present time, Feb. 22, 1904, all the formerly enlarged glands have receded to their natural size, but still retain their hard fibrous condition. The patient is and continues in the best of health, no trace of the disease remaining.

I intend to keep her under observation for some time, as it is too early to report a permanent cure. The result obtained has been very satisfactory, especially since the outcome of this disease, under the use of other therapeutic agents, has been almost invariably fatal.

New Appliances.

A SIMPLE CLUBFOOT RETENTION SPLINT.

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The treatment of a clubfoot should be commenced immediately after birth, when it can be cured by pressure. The lateral and then the anteroposterior element should be successively dealt with. In older cases where an operation of some sort is necessary, the complete overcorrection is best made at once. To partially correct such a case by operation, trusting to apparatus or body weight to complete the rectification, is to invite disappointment. For the clubfoot is not simply a misshapen foot. It is a clubfoot by reason of a peculiar distorting force which is actively at work in it. This force, if not overcome, increases rapidly. It is stimulated by unbalanced muscular movements, by weight bearing and frequently by the very measures which are employed for the cure of the case. For inefficient or intermittent resistance toughens clubfeet just as exercise strengthens normal muscles, ligaments and bones, but to a greater degree. Abnormal relations between bones induce abnormal shapes and abnormal internal structure. The correction of a clubfoot must be prompt and rapid to overtake the increasing rigidity. It must be excessive and long maintained, because of the inevitable tendency to relapse.

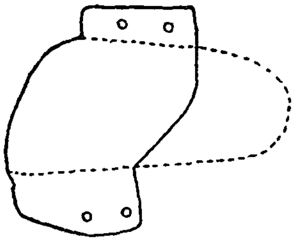
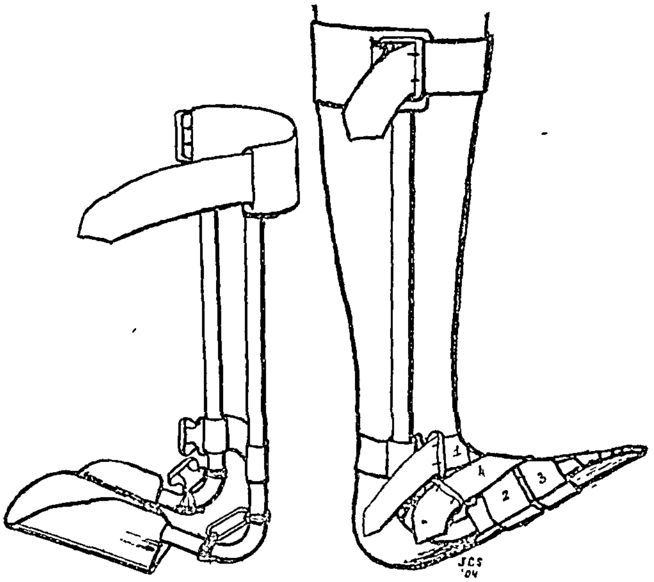


Fig. 1.—Pattern of footpiece. Dotted line shows outline of sole.

For the correction of the equinus in young subjects where the lateral deviation, if any, has been overcome, and where no operation is necessary, and also as a retention splint where the resistance to overcorrection has been eliminated by operation or otherwise, I employ the simple instrument here presented. Any tinsmith can make it from pattern and measurements furnished by the surgeon. It can be bent laterally as well as anteroposteriorly, into any required shape. It covers only those parts where pressure is needed. It has no joints to wear out. It is inexpensive. As compared with plaster of paris it has the following advantage: Being removable and capable of adjustment and modification, and the foot being accessible for examination, bathing, exercise and massage, one can apply more pressure than one would venture to use when the part is out of sight and reach. Rectification can therefore be more rapidly accomplished and nutrition is not so much interfered with.



Figs. 2 and 3.—Retention splint off and on.

The splint consists of a footpiece and calf band of galvanized iron or sheet brass, 22 gauge, and two side bars of telegraph wire, brass rod or Bessemer rod 3/16 inch in diameter. These dimensions are for a child of a year or under.

The footpiece is made from a tracing of the sole, as shown in Figure 1. It extends under the outer side of the sole sufficiently far back to make pressure on the cuboid and front of the os calcis. The posterior and inner parts of the sole are left uncovered so as not to interfere with the descent of the heel and arch. The footpiece extends upward on each side of the foot. If the foot is to be retained in a valgus position the inner lip is made higher than the outer.

The calf band is about 1¼ inches broad and extends half way around the limb posteriorly. It is placed as high as possible without interfering with the flexion of the knee.

The bars, being round, are pliable in any direction. They must be stiff enough to retain a given shape against the resistance of the foot. They are flattened at the ends where they are attached by two small rivets to the calf band and footpiece, and bent to the required angle of flexion. They should not be drilled except at the ends, because this would interfere with their modification.

Having made sure of the fit of the apparatus, it is covered and provided with straps and buckles. A piece of one-inch web long enough to encircle the limb with something to spare, and having a buckle attached to one end, is sewn or riveted to the outer face of the calf band, holes being punched for that purpose. The buckle is placed at the outer end. The whole splint, including the bars, is then covered with leather, or if that is not convenient, rubber plaster will serve, though it will require frequent renewal.

Cases of clubfoot present so much individuality that no hard and fast rule can be laid down for attaching the straps. Put them where they will be most effective and change them according to circumstances. In many cases of equinovarus, the following arrangement will be satisfactory: (Figures 2 and 3.) A heel strap of ¾-inch web is sewn from bar to bar so as to pass just above the tuberosity of the os calcis when the foot is at the maximum of flexion. This strap must be made shorter than needed, because it will stretch. A buckle is included with the outer bar. Another buckle is sewn to the outer bar just below it. A small iron or brass ring or a piece of wire with an eye in each end is secured to the inner bar at the bend. Starting at the upper buckle, a piece of web is passed across the instep (1) through the flattened ring, or under the wire, thence back (2) over the dorsum of the foot, and once (3) or twice (4) around foot and footpiece, to terminate in the lower buckle. The first turn draws the foot down within the grasp of the apparatus and holds the astragalus back under the tibia. The circular turns around foot and footpiece press down the inner border of the foot and correct the varus. Clayland of New York, as he states in a personal communication, starts the strap at the lower buckle and after bringing it back over the dorsum passes it through a slot in the sole plate near its outer edge, thence in a figure-of-eight turn around sole plate, inner side of foot, dorsum and outer ankle, within the bar, to a buckle placed at lower part of inner bar. This gives a lateral pull on the ankle. The instrument is worn over a stocking and inside of a shoe which has usually to be made to order. It may thus be used in walking and holds the foot in dorsal flexion and pronated or supinated if necessary. To evert the foot, the outer bar is extended up to a pelvic band, joints being provided at the knee and hip, and a band around the thigh.

Care must be taken that the heel strap does not stretch so that the foot plate slips forward and presses only on the metatarsals. The pressure should be exerted also on the cuboid and front of the os calcis.

Even after the foot has been allowed to assume a rectangular position for walking, it should be retained at night for a long time in a position the reverse of the deformity

As here presented, this apparatus is not suitable for use where the lateral deviation presents marked resistance. It is, however, susceptible of many modifications, such as the attachment of pressure plates to any part of the bars.

In reducing the strength of an acid by water the acid should be poured into the water, not the water into the acid, and the mixture should be stirred during the pouring.

AN X-RAY TUBE WITH ADJUSTABLE FOCUS

R. V. WAGNER, M.D.

CHICAGO.

If one examines the outline of a shadow from a light emanating from a large area—e. g., a gaslight—it will be seen to compare favorably with the outlines on a fluoroscope or on a picture, when the *x*-ray is used from a tube having the anode out of focus. On the other hand, the outlines of a shadow emanating from a small area—e. g., an arc lamp—resemble the outlines on a fluoroscope or on a picture, when an *x* ray tube having a sharply focused anode is used (Figs. 1 and 2).

The *x* ray emanates from the molecular bombardment of the rarefied air in the tube on the surface of the anode The structures of rarefied air are repelled from the concave disc or cathode forming the cathode rays or stream. This cathode stream striking the surface of the anode or disc in the center of the tube produces the *x*-ray. To obtain a sharp focus the anode must be a given distance from the cathode, just as an object must be a given distance from a lens to be in *focus.*

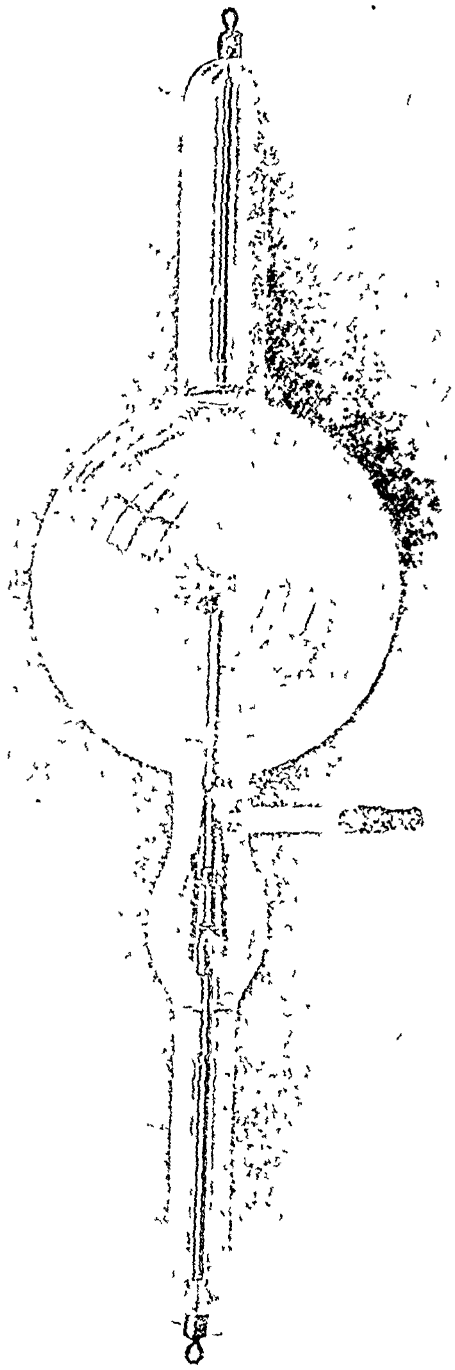


Figure 1

In making a Crookes tube by all methods used heretofore, it has been practically impossible to get the anode the required distance from the cathode, so as to obtain a sharp focus, as the stem supporting the anode had to be sealed in the glass by guess, and the tube exhausted before it could be tested, when if the anode was found defective in respect to its focus, it was too late to remedy the defect, without going to an expense nearly equal to that of making a new tube. A microscope can not be focused accurately by a person who guesses at the distance the lenses should be from an object, without looking through them. This would be much easier, however, than to focus a Crookes tube by guess, as to the distance the anode should be from the cathode, because of, the skill required on the part of the glass-blower to seal in the stem supporting the anode, so as to hold it where he thinks it should be; his judgment of where it should be is purely guesswork because there is no way of testing, until the tube is exhausted and properly excited

The new feature of my tube is in having the anode mounted on a threaded stem which can be magnetically operated through the glass, so as to move the anode up or down or circumferentially with the surface of the tube, to obtain an absolutely accurate focus (Fig. 3).

The little armature on which the magnet acts can not possibly get out of adjustment, and will hold the anode in any required position, either in focus or out of focus, as the operator may desire for some therapeutic purposes.

When a cheap metal is used for the anode, it must of necessity be out of focus because it will not stand up under the strain of having the molecular bombardment confined to a very small area, as is the case when the anode is in focus. Platinum is the only metal that will do for a sharply focused anode, as it not only stands a very high degree of heat, but is not broken down by the molecular bombardment, like inferior metals, e. g., nickel steel.

In my tube the anode (Fig. 4) is completely covered by a plate of platinum made very thick at the focus. This plate of platinum is electrically welded to the metal forming the body of the anode, and will stand an unusual degree of heat, and unlimited usage, even with the sharpest focus.

With my method of magnetically adjusting the anode, it is possible to make every tube alike, and to accurately focus the same after the tube is finished and in operation just as you focus a microscope by looking through the lenses, instead of guessing at the adjustment by observation as to the distance of the lenses.

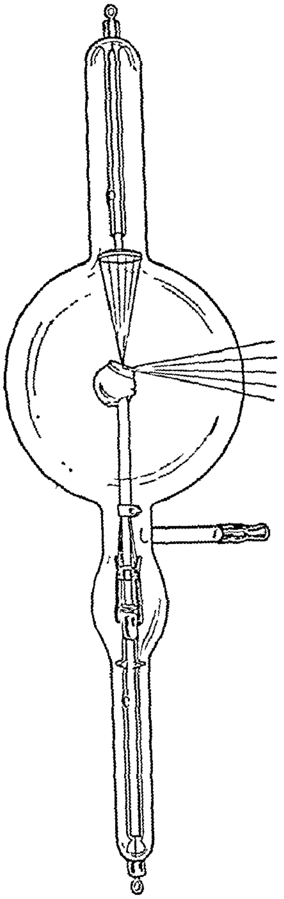


Figure 2

In order to appreciate the vast difference in x-ray work due to the proper focusing of a tube, the sharpness of definition can be carefully tested (Fig. 5) by taking an ordinary wire screen, 20 holes to the linear inch (called a 20-mesh sieve), hold the fluoroscope 24 inches away from a tube, and it will be found that with a poorly focused tube the screen will have to be brought very near the surface of the fluoroscope in order that the mesh be clearly distinguished. The nearer it is necessary to bring the screen to the surface of the fluoroscope, the more the tube is out of focus; but the farther away the screen may be held and the mesh clearly distinguished, the more accurate is the focus of the tube. With a perfectly focused tube the holes in a 20-mesh screen will stand out perfectly clear at least 12 inches away from the fluoroscope, having the fluoroscope 24 inches away from the tube.

A few simple tests that will enable anyone to distinguish a good tube from a bad one should be carefully considered X-ray workers posted on the requirements of a good tube will agree that it is more difficult to obtain a good tube to-day than it was a few years ago, before low-priced competition arose, and that two tubes made in appearance exactly alike, with practically the same degree of vacuum, and the same quality of glass for the bulb, will give entirely different results, on account of the difference in the focus effecting the definition in radiographic work. Every operator will find that out of a large number of tubes, as made heretofore, but one will do good work, and one that he is willing to adopt as his "pet tube."

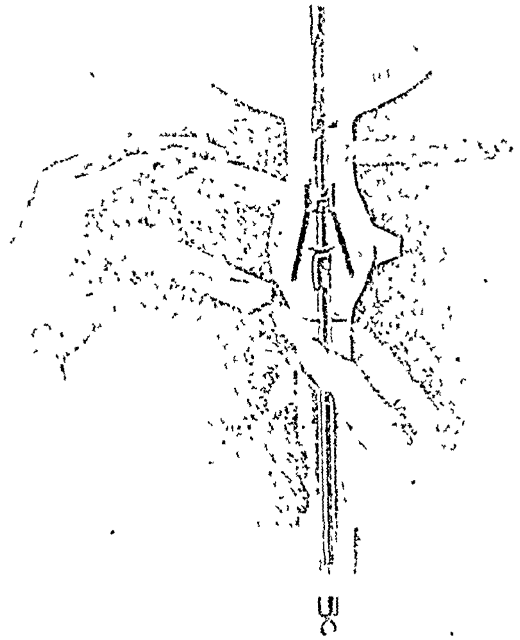


Figure 3

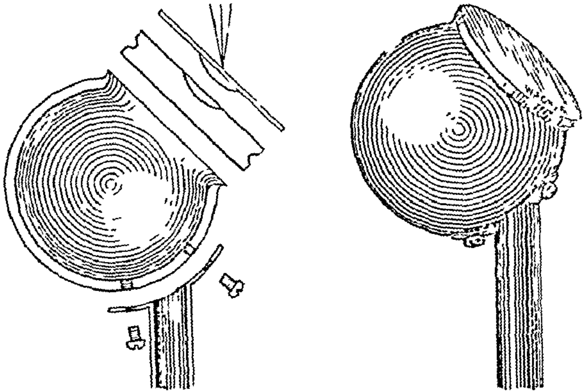


Figure 4

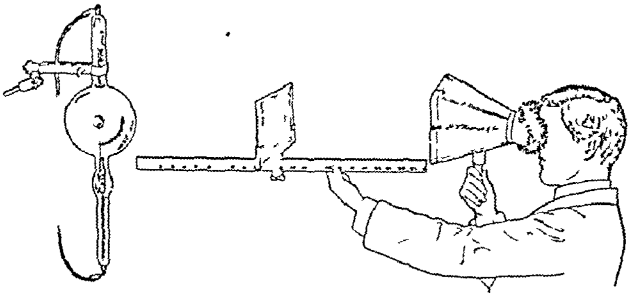


Figure 5

To be a member of the medical profession is to fill the most responsible position of which the author has any knowledge. The lives of not only individuals, but whole communities are entrusted to their care. There is no profession nor calling where a mistake has such serious results as in this, the medical. —*Medical Recorder.*

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THE SURGICAL USES OF RADIUM.

Much has been written and said during the past year about radium and its uses, and, as with every other new thing used therapeutically, there have been many sensational reports about remarkable cures. In a recent paper read before the Medical Society of the District of Columbia, Dr. Truman Abbe[1] gives an interesting review of the important work which has been done by investigators all over the world with radium, and also gives the results of some personal experience in its use. Metallic radium has not been isolated, and the product on the market and in general use is known as the chlorid of barium and radium. The strength or activity of a specimen is estimated by the rapidity with which the salt discharges a gold-leaf electroscope. The standard unit of time adopted is that required for the discharge of such an electroscope by metallic uranium. If the specimen of radium discharges the instrument in one-thousandth the time required by the uranium, the strength is taken as one thousand. Specimens of high strength are generally used, anywhere from two to three hundred thousand. The use of radium to give pictures of dense substances, as the x-rays are used, is not likely ever to prove very satisfactory, for it gives no sharp definition; the photographs are so blurred in outline as to have little value. Studies by a number of observers seem to show that radium rays diminish or inhibit the growth of certain forms of bacteria. Among others affected in this way are *B. anthracis, B. typhosus* and *B. coli communis*. Unfortunately the radium rays, like the x-rays, are not without harmful effects, so that the rays which inhibit the growth of bacteria damage the tissues to so great an extent that they probably will prove of little value. Radium burns resemble in nearly every respect those from the x-rays, appearing several weeks after exposure as a slight reddening, which, in case of longer exposure, may go on to form a blister or even a large ulcer. The scar is likewise smooth and hairless, even though the deeper parts of the skin are not involved, and healing is as slow as in x-ray burns.

The therapeutic uses of radium also follow the same lines as those of the Finsen and Roentgen rays. A number of cases of lupus treated successfully with radium rays have been reported. In some of these one part of the disease was treated with Finsen's light and the other with radium, with results in favor of the radium. Psoriasis and telangiectasis have also been treated successfully. One case of general melanosarcoma of the skin is reported by Exner of Vienna, in which the smaller nodules disappeared and the larger ones were growing smaller at the time of report. A large number of cases of inoperable and recurrent carcinoma and of epithelioma have been treated with radium, some of them apparently with considerable success. Exner treated a group of twenty cases in Gussenbauer's clinic with evident improvement in all. Cases of carcinoma of the cervix, and a case of inoperable carcinoma of the cervix and vagina, have been reported as successfully treated with radium. But too much confidence must not be placed in the value of radium therapy, and further study is necessary.

Newspaper reports—and even some articles in medical journals—about wonderful cures by radium, the x-ray or by other means undoubtedly do more harm than good. While too much should not be expected from any of those means of treating inoperable carcinoma, a sufficient number of cures have resulted to make their use entirely justifiable. Indeed, we believe that it is very unfortunate that so many members of the medical profession are inclined to neglect the treatment of inoperable malignant diseases. Such patients, if given no encouragement by the regular physician, are almost certain to fall into the hands of quacks, who not only extort from them all the money they can get, but almost invariably leave them in much worse condition than they were before. We can at least relieve pain, and give a little encouragement for permanent cure from the use of a number of the means which have been introduced from time to time. When operation is possible, it should certainly be given the preference in every case, and patients should be warned of the danger of temporizing with means of treatment, which are, in the majority of cases, only palliative.

The radium rays, no doubt should be classed with the x-ray, Coley's serum, Adamkiewicz serum and the various caustics. These have given cures in a few cases of inoperable malignant diseases, but they are too uncertain in their action to be used except when operation is out of the question. No doubt in the future we may be able to determine the cases to which these various therapeutic measures are best adapted, and the number of cures by such means may be considerably increased. It is along these lines we believe that radium will prove most useful.

ARTERIOSCLEROSIS.

The changes in the blood vessels are important accompaniments of senility. Whether these begin in the one coat or in the other, they give rise to loss of elasticity and reduction in lumen, so that the tissues are less well than normally supplied with blood, which, in addition, may be deficient quantitatively and qualitatively. The result is a condition of impaired nutrition, which by reason of the nature of the underlying disorder is insidious in onset and progressive in course. The alterations in the vessels, while as a rule widespread, are not always uniform in distribution, either in extent or in degree, and the sequels to which they give rise vary correspondingly.

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[1] Washington Medical Annals, 1904, vol. ii, page 363.

A number of interesting points were brought out in a discussion of this most important topic held recently before the Pathological Society of London.[1] Dr. T. D. Savill defined arteriosclerosis as a chronic, generalized thickening, condensation or degeneration of the arterial walls, which become hard or less elastic than normal, while the lumen remains unduly patent after death. He distinguishes three varieties, namely, intimal, medial and adventitial. The first and the third are often secondary to disease of the muscular coat. Atheroma, a patchy fibrocellular infiltration of the intima, is to be considered as distinct from intimal sclerosis. From a study of the bodies of 400 persons dead at the age of 60 years and upward, Dr. Savill reaches the conclusion that extensive patchy atheroma is consistent with extreme longevity and with a total absence of symptoms or vascular complications, and that the same statement is applicable to marked generalized intimal and adventitial sclerosis, provided that the media is relatively free from hypertrophy or disease, and that the balance between the heart and the arteries is not materially disturbed. On the other hand, he considers moderate disease of the muscular coat a serious potential evil. This may take the form of atrophy, which is not common, but is found in association with some wasting diseases; hypertrophy, which is more common, especially after middle life; cloudy swelling, with which granular degeneration is frequently associated; necrosis and calcification, occurring in spots or foci of varied size.

The term arterial hypermyotrophy is employed to describe a condition characterized by a generalized increase in the thickness of the muscular coat of the arteries due to an increase in volume, with or without numerical increase of the individual muscular fibers. It is a condition of genuine muscular hypertrophy, although it may be succeeded by degeneration. At an early stage it is relatively uncomplicated by other arterial disease, while later intimal and adventitial sclerosis and degeneration are likely to be present. The condition may be secondary to chronic renal disease, but often it occurs independently of such disease. It is, as a rule, associated with hypertrophy of the heart, either as cause or as result, or as the product of a cause common to both. The blood pressure is high, and the condition of the vessel-way may be responsible for hemorrhage into the brain and other situations.

Dr. Clifford Allbutt recognizes three varieties of arteriosclerosis, namely, toxic, as from lead, infectious diseases, diabetes, etc.; involutionary, from senile degeneration; and secondary, from arterial hyperpiesis. The first and the second are not necessarily attended with increased arterial pressure, on which the third is essentially dependent. The second and third may be present together, but are not so as a rule. In the second calcification is more likely to occur and all of the coats of the artery may be involved, but the heart is little if at all hypertrophied or dilated. In the secondary variety the first apparent factor is an increase in arterial pressure, probably dependent on some alteration in the blood and this in turn on some perversion of metabolism.

Dr. J. F. H. Broadbent includes under the term arteriosclerosis the degenerative lesions of the aorta comprised under atheroma, as well as those of the smaller vessels, on account of their close etiologic and pathologic relations. In a study of the vascular changes in sixteen cases of cerebral hemorrhage, senile degeneration of the vessels was found in two, while seven were associated with granular kidney and seven with a type of kidney in which the most characteristic changes were thickening and hyaline degeneration of the inner coat of the vessels. In the latter fourteen cases the heart and the middle coat of the radial artery were greatly hypertrophied. The cerebral vessels were dilated, thinned and hyaline, or studded with small white patches, which on microscopic examination were found to consist of localized thickening and degeneration of the subendothelial tissues, over which the muscular coat, thin and atrophied in some instances, could not, as a rule, be traced. In four cases there was advanced atheroma of the aorta; in the remainder slight degenerative changes immediately above the aortic valves or no change appreciable to the naked eye. Of six cases in which the coronary arteries of the heart were examined they were found healthy in four and in a state of advanced degeneration in two. The principal clinical characteristics were high arterial tension, hypertrophy of the heart and in several instances albuminuria. The high arterial tension was attributed to increased peripheral resistance, as a result of tonic contraction of the arterioles and capillaries, due to toxic substances circulating in the blood, perhaps from imperfect elimination on the part of the diseased kidneys. In the second group of cases the high arterial tension is believed to have antedated by many years the disease of the kidneys, and the toxic substances, such as lead and the products of deranged metabolism, that induce hypertonicity of the peripheral arterioles also give rise to the thickening and the degenerative changes in the renal vessels. The increased peripheral resistance causes hypertrophy of the heart and the muscular coat of the systemic arteries, and this is not to be regarded as a disease, but as a response to increased work. The cerebral vessels, however, being poorly provided with muscular tissue, become dilated under the constant and increasing pressure; their nutrition is interfered with; thickening and degenerative changes occur in the subendothelial tissues; the muscular coat becomes atrophied over the bulging necrotic tissue; and rupture frequently occurs. This type of degeneration, common in the aorta and the cerebral vessels, is not met with in the kidneys, in which thickening and hyaline degeneration of the intima and adventitia and hyaline degeneration of the glomeruli are the most characteristic lesions. The toxic products in the circulation are thought to be the predominant factors in causing vascular degenerations in the kidneys, while high arterial tension is considered as mainly responsible for lesions in the cerebral vessels. Intermittent strain associated with arduous occupation is doubtless responsible in many instances for the degenerative changes in the aorta with which aneurism is so frequently associated. Syphilis is an important etiologic factor in a large number of cases. Microscopically obliterating endarteritis of the vasa vasorum will be found, causing localized areas of necrosis in the vessel wall as a result of imperfect nutrition.

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[1] The Lancet, Feb. 20, 1904, p. 506.

With a knowledge of the facts at hand the problem presented to the clinician is the removal of influences causing increased arterial pressure and the reduction of this pressure to the normal, and also the elimination of toxic matters circulating in the blood, apart from prophylactic measures directed to the avoidance of these conditions. Hereditary influences must receive consideration in this connection and special precautions must be taken by those in whose families arterial degeneration is known to occur.

THE TYRANNY OF WORDS IN MEDICINE.

In his recent volume of lectures on diseases of the nervous system, in the course of his description of a case that he found labeled on the bed card of his clinic "simple neurasthenia," though on the gums of the patient he found a conspicous lead line, Sir William Gowers has something to say of the word neurasthenia and of other words that may cover symptom-complexes, for which it would be much better if the physician should find more definite terms. He says:

> The concise and concrete character of the word neurasthenia gives it a satisfying definiteness. This depends to a large extent on its classical and somewhat graceful sound. Not only is it graceful to the ear, but it is grateful to the mind of the patient who suffers and longs to know from what, who longs to have a name for that which he, or more often she, feels must be a more definite malady than is suggested by the commonplace designation of nervous weakness. But its use has extended far beyond the needs of the patient and indeed did so from the first. It has firmly established itself in current clinical terminology. Men are apt to rest on it as they would not on its English equivalent. If they do not actually think that they have found the malady from which the patient is suffering an influence is often exerted on them (of which they are unconscious) which lessens the tendency to go further in the search for the whole morbid state. The Royal College of Physicians of London could not include it in their nomenclature of disease. And yet it is now one of the most common of medical words in every language.

Sir William insists that words are our servants, but that they often exert a very masterly influence on us, none the less effective because we are not conscious of it. This is only, of course, a familiar exercise of what philologists have long known as the tyranny of words. With regard to neurasthenia, anyone of reasonably wide experience in hospital dispensaries in large cities must know how many sins of diagnosis the word serves to cloak. Everything from mild heart disease, incipient kidney disease and beginning tuberculosis, with their well-known tendencies to produce tired feelings, up to and including the severer forms of heart and kidney disease, and even such serious conditions as Addison's disease or diabetes or organic nervous disease come labeled with that wonderful word neurasthenia—more grateful far than Mesopotamia. It has quite displaced the word malaria, which used to cover so many of these conditions fifteen or twenty years ago, but which fortunately now has sunk into more or less innocuous desuetude, though malaria's replacement by another equally vague term does not argue much for general advancement in medical diagnosis.

Neurasthenia, however, is only one of a group of words that serve to express very indefinite diagnostic ideas, yet give a certain amount of satisfaction to patients, and apparently also to physicians. Biliousness is another one of these words. Any physician who analyzes the next ten cases he sees in which patients say that they are bilious will find, we venture to say, at least six different conditions included under this term. Whenever a patient has acid or bitter eructations, the word bilious is prone to be used in describing the affection, and even physicians do not generally realize that the bitter tasting material which is sometimes regurgitated, is not bile but peptone—an intermediate stage of stomach digestion.

It has been pointed out that the three words most popularly used for the description of common affections—rheumatism, catarrh and gout—signify according to their etymologic meaning exactly the same thing. Catarrh means an increase of secretion from its root, the Greek verb "to flow." Rheumatism has the same derivation; gout is probably from the Latin word "gutta," a drop, and also represents an increase of liquid in a part. We are sometimes prone to be humorous at the expense of a former generation of physicians who spoke of many affections as "rheums," and even classed all of the eczematous conditions, and it may be said most other skin diseases, under the term "salt rheum." There is no doubt, however, that our generation is leaving many openings in just the same way for the physicians of the future to exercise their wit. If the use of these lax general terms could be eliminated, there would be much less room for the wonderful cure-alls that now are so glibly advertised, so that there are good reasons for special efforts to get away from the tyrant words.

USEFUL BACTERIA.

One is apt to become so deeply impressed with the fact that bacteria are producers of disease, that one may lose sight of the equally important fact that there are groups of bacteria which are useful to mankind and even essential to our well-being. The most important group in this large class of micro-organisms is that of the normal inhabitants of the intestinal tract. It is well known that the intestinal tract of most of the warm-blooded animals is literally swarming with bacteria of various kinds, but their importance to the host is often greatly underestimated. Indeed, it has been thought that the body would be better off without them, but this seems to be a mistake, as is made evident by the following facts pointed out by Strasburger.[1] Experiments on birds and mammals indicate that the more highly organized animals can not live very long if all bacteria are excluded from the intestine. This is especially true of those animals which live largely on a vegetable diet, because in man and many of the highly organized warm-blooded animals the intestine does not secrete an enzyme that is capable of dissolving cellulose, and thus liberating the nutritive material inclosed in the vegetable cells, as is the case, for instance, in snails. The coarser vegetable foods might, of course, be reduced, by mechanical means, to such a fine state of subdivision as to do away with the necessity of dissolving the cell membranes in the process of digestion. This task is said to be performed in man, by the *Clostridium butyricum*, and in the herbivora by the *Bacillus amylobacter*, which are normal inhabitants of the intestinal tract, and are probably the same organism.

Most foodstuffs are, under certain conditions, decomposed by bacteria, and this decomposition may be either putrefaction or fermentation. In the small intestine the conditions for putrefaction are most favorable, on account of the temperature and the richness in proteid of the contents, but it is prevented by fermentation by the carbohydrates, caused by the *Bacillus lactis aerogenes* and the *Bacillus coli communis.* These organisms serve thus as a protection for the body, because if putrefaction were allowed to go on in the small intestine it would soon cause symptoms of intoxication, due to absorption of toxic products. It must be remembered that putrefaction in the small intestine would be quite different from that going on in the large intestine, because in the former are found partly digested proteids, which mostly are absorbed before the food reaches the large intestine. In addition to the protection against putrefaction and the consequent auto-intoxication, the fermentation in the small intestine is said to kill many pathogenic bacteria which are taken in by the mouth and pass through the stomach unharmed.

Another important group of bacteria is constituted by the nitrifying organisms. It is well known by the expert agriculturalists that a soil which is poor in combined nitrogen is not suitable for vegetation. This soil could be improved by adding compounds containing nitrogen, but that is impracticable. Another and more practical method of enriching this soil consists in growing in it the leguminous plants, especially clover. These plants have the power of increasing the nitrogen content of the soil, but it has been found that the plants alone do not possess this power. It is necessary that the soil should contain nitrifying bacteria, most important of which is the *Bacterium radicicola.* This organism grows in the nodules on the roots of these plants, and builds up nitrates from atmospheric nitrogen. The nitrates are taken up by the plant, and when the plant dies they get into the soil and render it more suitable for other vegetation. In Germany and other European countries, large tracts of barren land have been made productive by inoculating the soil with the *Bacterium radicicola,* and growing leguminous plants in it for several years. Our own agricultural department at Washington is now carrying on experiments in the hope of improving some of the arid land of our western states.

PNEUMONIA AND SOFT COAL.

In the monthly bulletin of the Connecticut Board of Health, the secretary, Dr. Lindsley, makes the point that some of the increase of pneumonia during the winter just closing is due to the increased use of soft coal. This suggestion is perhaps worthy of some thought. There is no doubt that since the great coal strike of last year there has been an increased usage of soft coal, and the high prices that have been kept up since then by the operators have a tendency to make this more or less a permanency. It will be a great misfortune, not only in an esthetic but possibly also in a sanitary point of view, if the price of hard coal is maintained, putting it out of the reach of many who formerly utilized it and tempting many others who perhaps could still afford it, but who through motives of thrift will more or less discontinue its use. It is possible, of course, that the theory that soft coal is responsible for the increase of pneumonia is overstated, but still if it is at all a contributing cause even of the loss of a few lives, it is not a matter for neglect.

CANCER AND FROZEN MEAT.

A rather curious inquiry was made in the British House of Commons a few days ago, asking whether the use of frozen meat—which has become a considerable portion of British diet—was in any way responsible for the increase of cancer. It shows the public interest in this subject, though the possibility of frozen meat having anything to do with cancer is about as remote as that of the responsibility of tomatoes or other articles of food which have been thus credited in the past. Of course, the molecular changes which take place in the process of freezing may deteriorate the nutritive qualities of meat to a certain extent, but so far as we have been able to learn or observe, cancerous disorders are not more frequent among the Eskimos, who for a large part of the year, from necessity, live almost exclusively on frozen meat, than among other people of the globe. Of course, the field of observation there is limited, but if frozen meat were really responsible for many of these evils, this peculiarly hardy section of the human race ought to have shown its effects.

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[1] Münchener med. Woch., 1903, 50, 2289.

X-RAY IN LEUKEMIA.

That the *x*-ray in some mysterious way produces tissue changes that may result in the disappearance of superficially situated pathologic lesions or may lead to irritation or burning of the healthy skin, is well known. Of its effects on deeper structures, both in conditions of health and of disease, much less is known. Experience alone can show whether it is efficacious in the case of tumors lying deeper than the skin, and whether any harm to normal structures, analogous to the burn of the skin, may result from its long-continued use. A few months ago Senn[1] reported on the remarkable effects of the *x*-ray in leukemia. In the present number of The Journal is reported a carefully recorded case by Brown, in which a change for the better that is truly astonishing is described. Brown cautiously refrains from declaring his case permanently cured. This is wise, for we know the tendency there is in leukemia, pseudoleukemia and pernicious anemia to spontaneous improvement and relapse, even with no treatment whatever. Pseudoleukemia, also, under the influence of an intercurrent erysipelas, may be symptomatically cured. The blood picture, the spleen and glands as regards size, the subjective symptoms in leukemia may all show decided improvement for a time. But these changes seem to be quantitative rather than qualitative, and sooner or later the relapse occurs. It would be wise, therefore, in all instances of marked improvement in leukemia, to make not only a count of the number of the leucocytes, but a differential count as well. A large percentage of myelocytes in the blood of a supposedly cured leukemic may show that the underlying condition has not been done away with. While reports of any therapeutic measure that will produce such striking benefit as the *x*-ray in leukemia are valuable, conclusions should not be too hastily drawn, and each case should be carefully studied and watched for a long period.

THE DANGER OF BURIAL ALIVE.

A bill was recently introduced in the Massachusetts legislature providing for the compulsory employment of certain specified means to prevent premature burial. The legislator seems to have the idea that many persons are buried alive, and that precautions are necessary to prevent such accidents. Our contemporary, the *Boston Medical and Surgical Journal,* very justly criticises this proposed legislation, and gives good reasons why it should not be enacted. The chances of premature burial, according to the best medical opinion, are very slight, save, perhaps, in periods of panic and of epidemics, and the sensational stories which appear in the secular press and which have given rise to the morbid fear—which is the real instigator of the bill—have seldom any basis of fact. The common use of preservative fluids in the body before burial would certainly prevent any possibility of resuscitation, and yet we have never heard of any involuntary manslaughter being committed by embalmers. A man can not rise in his grave with his arteries and veins filled with an arsenical solution, and this is the actual condition of things in a very respectable proportion of burials. While the idea of being buried alive is most distressing, it is improbable that there could be much agitation or suffering, because trance conditions are very seldom if ever associated with consciousness, and the lack of air in the coffin would quickly asphyxiate and extinguish any spark of life that might remain, probably without any suffering whatever. This, however, does not make it any more desirable to be buried alive, but it is safe to say that the opportunity for such is hardly to be calculated on. One thing, however, is worth consideration, and that is that there is occasionally a case in which greater care should be exercised in making out the death certificate. The practitioners should never neglect due personal inspection or examination. It should be less common for death certificates to be signed by physicians without any personal knowledge of the actual state of affairs; while the consequences are not likely to be serious, it is a dereliction of duty on the part of the physician who thus makes out the certificate. The signs of death and the indications of the history of the case are sufficiently certain to enable any competent physician to decide either that he may safely give his certificate, or that, if he feels doubtful, further evidence is necessary. The latter, however, would be a rare necessity.

GOITER IN THE STATE OF WASHINGTON.

Some months ago the editor of the *Medical Sentinel* published an editorial inquiry as to the prevalence of goiter in the northern Pacific states, especially Washington. In reply, Dr. Thomas W. Musgrove, Mission, Wash., describes[1] the conditions in the Wenatchee and Puyallup valleys in that state. In Mission, where he practices, goiter is more common than in any other part of the state. Whole families are infected, and animals—dogs, lambs and pigs—suffer from this endemic enlargement of the thyroid. Nearly every woman who has lived there long and who is pregnant has her neck enlarge *pari passu* with her abdomen. In Puyallup Valley most of the cases appear in young girls, and are cured if treated early with tincture of iodin externally and hydriodic acid and phytolacca internally. It seems more particularly to affect those who drink the water from the running streams that come from the mountain glaciers, while those who drink from wells where the water has been filtered through gravel are less likely to be affected. Musgrove is confident that there is some mineral constituent in the water that is the cause of the condition. He finds a rather peculiar condition of the urine. The specific gravity is high, 1025 to 1035, phosphates are abundant, and the carbonates are so marked that the addition of nitric acid to urine in which boiling had caused an albumin-like precipitate, clears up that precipitate with such a sharp effervescence from the escaping carbonic acid gas as to create a decided commotion in the fluid. This condition is found in the perfectly healthy inhabitants of this valley. The editor of the *Medical Sentinel* thinks that Dr. Musgrove is a little too optimistic as to the possibility that the cause of goiter may be discovered, since much work has been done abroad and without very definite results. The absence of iodin in the water seems to be the only fact that is apparently correlated with the disease. He remarks that Dr. Musgrove's observation that the internal use of hydriodic acid relieves these cases is suggestive. It would seem that with such a localized endemic condition, something might be done to determine more definitely the pathology of goiter. We trust that the scientific men of the profession in Washington who have opportunities to observe and laboratory facilities for experimentation will do their best to elucidate the subject. Further data on the subject are very desirable.

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[1] N. Y. Medical Record, Aug. 22, 1903.

[1] Medical Sentinel, February, 1904.

WATER PURIFICATION BY BACTERIA.

In a recent article, Prof. John H. Long[1] reviews some of the facts in regard to bacteria, especially as regards water purification. Most of his data were drawn from the testimony brought forth in the investigation relative to the purification of the Chicago sewage in the Illinois River. As this matter is still in litigation, we need not here discuss the point at issue, but will simply allude to one point which Long mentions, which is at least suggestive. Referring to the success of bacterial fertilization of land, he says:

> With such experience before us I believe it is not too much to hope that some day someone will undertake the sanitary inoculation of streams as a means of hastening or completing the destruction of organic matter. Indeed, a suggestion essentially in this line was thrown out by Dupre sixteen or seventeen years ago, but it attracted no attention, as too little was then known of the conditions or the extent of bacterial action.

Professor Long admits that the question is a complicated one, and that there are problems in it that may be difficult of solution. The element of time enters into the question of the destruction of pathogenic bacteria, and the flow of the river must not be too rapid. He suggests, however, that we are coming to the point where the flow of some of our large rivers will have to be checked or governed to avoid the disastrous floods which occur, and it may be that the storage reservoirs primarily designed to hold up the floods may become purification reservoirs. It is probable that there is something in his suggestion. The contamination of river waters has long been a serious question in many older countries, and it is beginning to be serious in this country. Something will have to be done if we are to preserve the purity of the water supplies and the attractiveness of our flowing streams, especially in our more thickly settled regions. If it is possible by bacterial treatment to remedy some of the threatening evils, it is a matter worthy of very serious consideration not only by scientific men but by the state. When the full testimony is in and the facts fully developed as to the points of dispute now being litigated between the State of Missouri and the State of Illinois, we will perhaps have facts that will help to indicate the course to be pursued. We realize the importance of bacteria, at least so far as the pathogenic forms are concerned, but we are very apt to ignore the beneficial effects of a far greater number of these microbes.

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[1] Journal of the American Chemical Society, vol. xxvi, No. 2.

OVAL BLOOD CORPUSCLES IN MAN.

The oval or elliptical red blood corpuscles are generally supposed to be found in mammals only in the group to which the camel and its close congeners belong. It is interesting, therefore, to record a case of what we must consider an anatomic or physiologic sport of this kind in the human species. Mr. Melvin Dresbach[1] reports the case of a healthy young mulatto in the University of Ohio in whom it was accidentally found that the red corpuscles of his blood were elliptical instead of round. The case was carefully investigated for a period of four months, specimens being taken at various intervals, and in every specimen many cells of abnormal shape were noted. Dresbach says the erythrocytes were distinctly elliptical, slightly biconcave, non-nucleated cells which did not adhere in rouleaux. In many of these the biconcavity was scarcely perceptible. The estimate was that fully 90 per cent. of the red cells lacked the circular outline of normal human corpuscles, and that the elliptical shape was not modified in any way under the pressure of the cover glass. In every other respect they seemed to correspond with the normal red blood cells of the ordinary individual, except in the slight degree of biconcavity. A large number of the corpuscles were measured and extremes and averages are reported. The shortest width observed was 3.9 microns, the greatest, 4.8; the shortest length was 8.5 microns; the greatest, 10.7. The average length was 10.3 microns and the average width 4.1 microns. It would appear, therefore, that in this individual the elliptical blood cells formed the mass, and that the proportion of length and width was about 2.5 to 1. These proportions differ widely from those of the average normal red blood cells, which average 7.2 to 7.8 microns in diameter. The thickness was practically the same as that of normal red blood corpuscles, the number was 5,000,000 per cubic millimeter and the quantity of hemoglobin was normal. The colorless corpuscles presented no peculiarities. It is a rather curious fact that the brother of the individual presenting these peculiarities had perfectly normal corpuscles. The case must be an exceedingly rare one, and further details as to the physical condition would be desirable. Just what causes the peculiar variations in this case is left entirely a matter of conjecture. It would be rather a strain to call it a reversion to an earlier type, and the fact that it occurred in an individual of mixed blood does not clear up the case. The observation seems to be well accredited, appearing as it does in a scientific journal and occurring in a leading state institution.

HOW TO EAT.

In a recent issue of THE JOURNAL "The Ethics of Eating" was editorially noticed and the importance of the element of pleasure and enjoyment in the taking of food emphasized. An article in the *Nord Medical,* June 1, 1903, by an experienced French physician, Dr. A. Monteuuis of Dunkirk, still further brings out this fact. He emphasizes that none of the organs of the body is so sensitive to the action of the nervous system and so directly sensitive as the stomach. Any emotion or annoyance may be sufficient to arrest the gastric digestion and entail next day a headache, pains in the limbs or other disturbance. Worry or overfatigue is liable to produce the same effects. The palpating hand can feel the contraction of the stomach under the emotion. Some mothers never digest a meal properly, because they fret over their children's table manners or over household cares. Overwork, especially moral and mental, by fatiguing the nervous system, reacts on the stomach. The organ in these cases is not diseased nor capricious, but is merely a victim to the causes of irritation or depression which exhaust, irritate or at least hinder its proper functioning. We are liable to forget the important part played by the inhibiting influences emanating from the nervous system on the vital processes, and particularly on the digestion. One fatigued nerve center reacts on another, and so on, inducing a whole train of inhibitions. This solidarity of the nerve centers gives the key to keep them in tone. Disagreeable impressions, depressing the nervous system, inhibit the digestive processes. Gayety, on the other hand, promotes them. The preponderant influence of the nervous system is displayed equally promptly in the response to peaceful, cheerful surroundings as in the inhibitions from worry. Monteuuis suggests that the physician should resume his old position in society as the educator, and should preach in season and out of season against the race for wealth and social position which is ruining the digestion of modern men and women. The moralist has been teaching for ages that money and social position do not bring happiness, that the sweetest pleasures the world has to offer are those of simple, happy family life. The medical profession should bring its influence to bear on the same subject and show the public that this alone is the key to normal digestion and health, both of mind and body. The will and character are strengthened by the effort to leave cares and worries outside, and to preach and practice light-heartedness in the family circle, above all at the table. In the treatment of a neuropath the physician should impress on the family the necessity for this nerve hygiene by gayety at the table. If he is unable to secure this, all his other measures will prove futile. Our profession has been remiss in allowing people to get into the present strenuous modes of living without being more fully informed and warned of its almost inevitable health penalties.

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[1] Science: March 18, 1904.

HALF FARE TO ATLANTIC CITY.

As is announced under General News this week, a rate of one fare for the round trip to the Atlantic City session of the American Medical Association, June 7 to 10, 1904, has been granted by the Trunk Line Association. This good news is received by telegraph as we are going to press. It means much for the session. The Trunk Line Association also advises other passenger associations to grant the same rate, and there is good reason to believe that they will do so. The Trunk Line Association has been very conservative in previous years, and has granted only a one and a third fare rate. Following its lead this year, it may be relied on that the other associations will grant a half-fare rate—at least throughout the larger part of the country. The effect on the attendance at the Atlantic City session will be marked, and many other signs point to a session which shall be a record-breaker in point of size as well as in other particulars.

Medical News.

CALIFORNIA.

Smallpox at Oakland.—After the disease had run its entire course seven cases of smallpox were discovered in one family in Oakland, and the house was then quarantined.

Health Board Dismissed.—As a result of differences of opinion regarding smallpox policy, the board of health of Petaluma was summarily dismissed from office, and a new board appointed, which organized with Dr. Israel M. Proctor, president, and Dr. Harry S. Gossage, secretary.

Railway Hospital at Los Angeles.—The Santa Fe System has decided to complete its chain of hospitals from Albuquerque to the coast by erecting a hospital in Los Angeles, to cost $100,000, with accommodation for 75 to 100 patients, to be under the charge of Dr. Norman H. Morrison, chief surgeon of the road.

Hospital Attaches Uniformed.—Chief Surgeon George F. Brackett of the city emergency hospitals has made important innovations. The latest is that all attaches appear for duty in white duck uniforms, the insignia of the office of each being neatly embroidered on the military collar of the service coat. The purpose is to prevent confusion and to classify the employes, that strangers and patients may know whom they are addressing.

Bubonic Plague.—The diagnosis of plague in cases 115, 116 and 117 has been bacteriologically confirmed.——A fatal case of supposed plague in a white woman occurred near Concord, Contra Costa County, February 29. This is the third fatal case from this locality.——The supervisors of San Francisco have appropriated $2,000 from the urgent necessity fund, to be used in improving the sanitary condition of Chinatown.——The Danysz virus is now being used in San Francisco and Contra Costa in the war of extermination against rats. (This method is described under Foreign News this week.)

CONNECTICUT.

Diphtheria Closes Schools.—The public schools at Noroton were ordered closed, March 9, owing to the prevalence of diphtheria.

Donation to Hospital.—Bishop Tierney of Hartford has given $5,000 of the $15,000 presented to him by the priests of his diocese, to St. Francis Hospital, Hartford.

The State's Pneumonia Record.—Of the total of 1,384 deaths reported in February, 217, or 15.68 per cent., were caused by pneumonia. In January 1,428 deaths occurred, of which 213, or 14.91 per cent., were due to this cause.

Compromise Smallpox Bill.—After pending for nearly two years the bill of Dr. Charles W. S. Frost, health officer of Waterbury, for services rendered in the smallpox epidemic, amounting to $3,830, was settled for $2,500.

National Guard Reorganization.—Under the reorganization of the medical department of the National Guard, Colonel Schulze made the following nominations for assignment to the First Infantry, March 15: Surgeon-major, Dr. John B. McCook; surgeon-captain, Dr. Heman A. Tyler, and surgeon-lieutenant, Dr. William H. Van Strander, all of Hartford.

New Haven Personals.—Dr. Henry H. Smith has taken a twenty-day trip to the Danish West Indies.——Dr. Nicola Mariani fell on a sidewalk, March 7, and fractured his left arm.——The position of medical examiner for the Yale gymnasium has been abolished, thereby dropping Dr. Jay W. Seaver, who for 25 years has so served. Dr. William H. Callahan, who is in charge of the United States Army dieting squad, will be medical assistant in the gymnasium.

DISTRICT OF COLUMBIA.

Hygienic Cantata.—At the Washington Saengerbund concert, March 20, a notable feature of the performance was a cantata, "Hymne an Hygeia," composed and orchestrated by Dr. John C. Hemmeter of Baltimore.

The Pneumonia Exception.—Washington has not shared in the destructive mortality from pneumonia which has obtained generally throughout the country. The pneumonia deaths for February were less than for February, 1903.

Reciprocity in Medical Licensure.—The board of medical supervisors of the district has submitted to the commissioners a draft of a bill to authorize the board to issue licenses to practice medicine to licentiates of corresponding boards of other jurisdictions.

New Providence Hospital Opened.—New Providence Hospital, recently completed at a cost of $1,000,000, was opened, March 16. with formal ceremonies, including addresses by Cardinal Gibbons, Secretary of War William H. Taft, Surgeon-General George M. Sternberg, Dr. John W. Bayne, president of the medical board, and others. The hospital has accommodations for more than 500 patients, and there are over 100 private rooms and apartments. Special buildings have also been provided for a nurses' home, and an isolation hospital.

Conditional Department of Public Health.—An ordinance has been adopted by the board of trustees of Columbian University, to go into effect when an endowment fund of $200,000 has been pledged, or a guarantee fund of $10,000 a year for five years has been subscribed, creating a department of public health in which the following subjects shall be taught: Hygiene, Dr. George M. Sternberg; sanitary chemistry, Dr. Harvey W. Wiley; bacteriology, Dr. James Carroll; medical zoology, Charles W. Stiles; sanitary administration, Dr. William C. Woodward; sanitary inspection, Dr. Walter Wyman; dangerous occupations, Charles E. Monroe; comparative medicine, Daniel V. Salmon; insects as agents in the transmission of disease, L. O. Howard; international law, Justice David J. Brewer; constitutional and statutory law, Henry St. G. Tucker, and administrative law, George W. Scott.

FLORIDA.

A Year and a Day for Absent Treatment.—In the United States Court, at Jacksonville, March 1, Mrs. Helen Wilmans-Post, an "absent-treatment" healer by the correspondence method, was convicted of using the mails for fraudulent purposes, and was sentenced to imprisonment in the penitentiary at Nashville, Tenn., for a year and a day. An appeal was taken and granted, and a bond of $5,000 given.

Sickness Statistics.—Dr. Joseph Y. Porter, Key West, state health officer, in his annual report calls attention to the efforts of the State Board of Health to obtain information as to the prevalent diseases in the state, that intelligent study may be made the causes which produce them. He urges the physicians of the state to report all cases of illness which necessitate absence from work or business or confinement to the house. From these reports he can make up a consolidated report which will be of value in determining the health status of the state.

Smallpox in Florida.—Dr. Hiram Byrd, special agent of the State Board of Health, in his report to that body, states that in 1903 he investigated 23 reported outbreaks of smallpox, exclusive of Jacksonville and Pensacola. In 3 instances the alarm was false, and in 6 the source could not be made out. Of the remaining 14, 7 originated in Alabama, 3 in Georgia, and one each in South Carolina and Indiana. Two cases originated in Florida. He draws the following conclusions:

> 1. Once an individual is rendered immune against smallpox he is immune for life.
> 2. In a great majority of cases one vaccination produces that immunity.
> 3. One successful vaccination may, on the other hand, produce only a partial immunity, and in such cases the individual may subsequently contract smallpox or be successfully vaccinated.
> 4. In a great majority of cases one attack of smallpox produces complete immunity.
> 5. One attack of smallpox may, on the other hand, produce only partial immunity, and in such cases the individual may subsequently contract smallpox or may be successfully vaccinated.

GEORGIA.

Fund Almost Complete.—Less than $800 now remains to be subscribed to ensure the founding of a hospital in Albany.

Addition to Macon Hospital.—Macon Hospital Association has decided to build an additional wing to the hospital building, which will contain 18 rooms.

Smallpox.—Cuthbert and Mansfield report the disease as epidemic.——In the Covington convict camp a case has appeared, and all the convicts have been vaccinated.

Personal.—Dr. Walter A. Crowe has been elected a member of the medical board of Grady Hospital, Atlanta, vice Dr. Virgil O. Hardon, deceased.——Dr. B. S. Gostin, Macon, was examined for the position of assistant surgeon, Georgia State Troops, March 3, at Augusta. He has been appointed assistant surgeon and assigned to the Second Infantry.——Dr. Joseph E. Johnson, Elberton, had his arm broken in a runaway accident, March 7.

ILLINOIS.

Hospital for Sick Insane.—The Board of County Commissioners of Cook County has authorized the transformation of the old consumptive hospital at Dunning into a hospital for the sick insane, at a cost estimated at $10,000.

To Avoid Publicity.—The East St. Louis Medical Society has adopted the following resolution:

> *Resolved,* That the East St. Louis Medical Society request the reporters of this city to omit the names of any physician who may be called in accident cases, or who may perform operations.

Personal.—Dr. Theodore N. Rafferty, Robinson, has returned from a vacation of a month in the south.——Dr. Elbert J. Clark, Winnebago, has decided to retire from practice, and to travel in hope of benefiting the health of Mrs. Clark.——Dr. James I. Wernham, Marengo, has started for Vienna.——Dr. and Mrs. James Warren Van Derslice, Chicago, sail for Europe March 26.

Analyzes Water Supply of State.—The Illinois State Board of Health has completed an analysis of the drinking water in all cities of the state having a population of more than 5,000. The supply was found to be "good" in Aurora, Belvidere, Belleville, Braidwood, Batavia, Beardstown, Blue Island, Bloomington, Chicago Fourteenth Street tunnel, Chicago Lake View tunnel, Clinton, Dixon, Freeport, Fairbury, Galesburg, Geneseo, Havana, Hoopeston, Jerseyville, Lake Forest, La Grange, Maywood, Oak Park, Ottawa, Pontiac, Princeton, Pana, Rockford, Savanna, Springfield, Sycamore and Taylorville. It was found to be safe, although not sufficiently pure to be classed as good, in Chicago Avenue tunnel, Chicago, Decatur, Danville, Evanston, Galena, Monmouth and Paxton.

Chicago.

Hektoen Goes Abroad.—Dr. Ludvig Hektoen, head of the McCormick Memorial Institute for Infectious Diseases, will go to Europe early next month to study, and to secure information for use in the construction of a large hospital for infectious diseases, which is to be erected in the near future in Chicago.

Plan Campaign of Education.—The National Anti-Tuberculosis Association was incorporated at Springfield, March 17, by Dr. Walter B. Metcalfe, Rev. Frank M. Carson and others, to distribute information regarding the disease. A free clinic will be established in the Chicago down-town district. It is planned to tender the services of lecturers to those who desire to know more of the subject.

Pneumonia Still Far in the Lead.—Pneumonia caused 137 of the 578 deaths for the week ended March 19, a percentage of 23.72; consumption follows with 74 deaths; then come violence, with 33; heart diseases, with 32, and nervous diseases with 28. The death-rate for the week was at an annual rate of 15.44 per 1,000, higher than that of the previous week, but below that of the corresponding week of 1903.

Medical Society Endorses Emergency Hospital.—At the meeting of the Chicago Medical Society, March 16, the project of the Iroquois Memorial Association to erect an emergency hospital in the business section of the city was approved and the following resolutions were unanimously adopted:

> *Resolved,* That the Chicago Medical Society approve and unqualifiedly indorse the action of the board of trustees of the Iroquois Memorial Emergency Hospital in their generous effort to give to the people of Chicago a modern, fully equipped and endowed hospital capable of rendering prompt assistance to those cases of unexpected injury and sickness which are of daily occurrence, and be it further
>
> *Resolved,* That we, as a society, tender to the hospital our counsel, advice and professional services whenever required.

KENTUCKY.

Personal.—Dr. William W. Ray has retired from the superintendency of the Western Kentucky Asylum for the Insane, Hopkinsville, and has been succeeded by Dr. Milton Board, Jr., Hardinsburg.

A Change of Management.—Beginning with the issue of January 1, the *American Practitioner and News* passed under the ownership and editorial control of Drs. Fouche W. Samuel and Argus D. Willmoth of Louisville.

Appointments.—Governor Beckham has made the following appointments, which were ratified by the senate before its adjournment: To the State Board of Health, Drs. Joseph M. Mathews, Louisville, George T. Fuller, Mayfield, re-appointed for six years: Dr. Frank O. Young, Lexington, vice Dr. Leslie L. Robertson, Middlesboro, resigned; visitors to Central Asylum for the Insane, Drs. Maverell K. Allen, Benjamin W. Smock and W. C. Vander Espt, Louisville.

Schools' Swindled.—Several of the medical schools in Louisville have recently been imposed on by a man calling himself "Dr. Jos. C. Dougherty." He would matriculate to do postgraduate work and offer a check in payment for a much larger sum than the fee required, and obtain the change. These checks were made payable to Dr. Jos. C. Dougherty, and were drawn on the Jefferson Bank of St. Louis, signed by Daniel J. Dougherty. All the checks were returned with the statement that they were forgeries.

MARYLAND.

Baltimore.

High Death-Rate Continues.—The death-rate continues high, 215 last week against 184 in the corresponding week of last year. This represents an annual rate of 19.51 per 1,000. Pneumonia caused 32 and consumption 29 deaths.

To Make Up Fire Loss.—An appropriation has been proposed for the Johns Hopkins Hospital in the state legislature. This will not, however, equal the loss, and if the Rockefeller plan fails, it is probable an appeal will be made to the country. It is believed that there would be a generous response for this noble institution in its misfortune.

MASSACHUSETTS.

Few Thousands Yet Needed.—The contributions to the $100,000 fund for re-building the Convalescent Home of the Children's Hospital at Wellesley Hills, now amount to $93,077.

Personal.—Dr. George W. Gale, East Saugus, sustained serious injuries by a fall on the ice in Cliftondale, March 4.——Dr. William H. Grainger, East Boston, who refused to resign from the Board of Trustees of Pauper Institutions, was removed by the mayor, March 11.

Infection by Visiting Servants.—The Woman's Health Club of Boston, on March 18, discussed the spread of disease among families by means of the visiting domestic servants. "Hygiene in the Public Schools" was the topic of a paper read at the same meeting by Dr. Alice M. Steeves.

Bequests.—By the will of William Littlefield, Lexington, the following hospitals benefit: Boston Lying-in Hospital, $3,000; Children's Hospital, $5,000; Willis Consumptives' Home, $5,000; New England Hospital for Women and Children, $3,000; Washington Home (for dipsomania) $5,000; and Massachusetts General Hospital, $5,000. The New England Deaconess Home and Hospital will receive $200 annually from the estate of Alfred M. Williams of Brookline.

From Sanitarium to Sanatorium.—The Sharon Sanitarium has changed its name to Sharon Sanatorium. This institution has proved very useful in its care of incipient phthisis, especially among women, who are received for $5.00 per week. Dr. Frederick I. Knight is the consulting physician, and Dr. Walter A. Griffin the resident physician. Among the newly-elected directors are Drs. Vincent Y. Bowditch, Robert W. Lovett and L. Vernon Briggs; Dr. Bowditch being the medical director and the one whose name has been most closely associated with the institution since its establishment in 1891, the first of its kind in New England.

NEW JERSEY.

The Revival of a Blue Law.—There have been so many cases of contagious diseases in Passaic during the last year that have not been reported that the board of health has decided to pay ten cents to the physician for every case of contagious or infectious disease that he reports.

Cooper Hospital Must Pay Taxes.—The Court of Errors and Appeals of New Jersey has decided against the Cooper Hospital estate, and sustained Camden City in assessing properties of the estate not used for hospital purposes. The hospital thus may be deprived of considerable revenue. There is a claim against the estate for $30,000 for back taxes. The trustees asserted that as a charitable institution, under its charter all properties from which revenue is derived to maintain the same is exempt from taxation.

Examination for Sanitary Inspectors.—The members of the board of examiners appointed to test the fitness of applicants for appointment as sanitary inspectors, met in Princeton, March 16, and an organization was effected by the selection of Dr. William H. Murray, Plainfield, as chairman, and Dr. A. C. Hunt, Trenton, as secretary. The remaining members of the board are M. N. Baker, C.E., of Montclair, D. D. Chandler, health officer of Newark, and D. C. Bowen, assistant state inspector of food and drugs, of Asbury Park. Regular examinations will be held on the first Wednesday of June and December.

NEW YORK.

Personal.—Dr. F. C. N. Jerauld has been appointed a member of the Niagara Falls Board of Health, and Dr. Walter A. Scott has been elected health officer.

For Insane Hospitals.—A bill asking for the appropriation of $1,203,000 for the construction of buildings, repairs and improvements at the state hospitals has been submitted to the legislature.

Why Has Middletown a Low Birth Rate?—The state health commissioner, Dr. Daniel Lewis, is seeking the reason for the low birth rate of Middletown city. Although it has a population of 15,000, during the last five years there have been only 757 births, while the deaths number 1,358.

Improvement at Watertown.—The typhoid fever situation at Watertown shows a marked improvement. The number of cases now in the town is less than 500, and the cases reported daily show a marked decrease in number. Arrangements are practically completed for supplying the town with pure spring water.

Cancer Research Abandoned.—After spending $100,000 the state has abandoned its attempt to find a cure for cancer. The committee on finance has discontinued the annual appropriation of $15,000 to the Cancer Laboratory at Buffalo, as it was asserted that nothing could be shown in return for the money expended.

Pre-nuptial Examination.—A bill will be introduced in the New York legislature providing that all persons must obtain a physician's certificate before a marriage license can be obtained. The bill is intended to put a restriction on the marriage of imbeciles and also to prevent those having consumption and other diseases from marrying.

Toy Pistol and Tetanus.—In view of the agitation by the various medical societies of the state relative to the relation between tetanus and the toy pistol, Senator Armstrong has introduced a bill in the legislature providing that no loaded blank cartridges, toy or other pistols shall be sold to boys under eighteen years of age.

Typhoid at Poughkeepsie.—Within a few weeks so many cases of typhoid fever have developed in Poughkeepsie and the situation is considered so grave that it is feared the State Board of Health will have to be called in and vigorous measures taken to wipe out the disease. There are 21 cases now under treatment at Vassar Hospital.

State Water and Sewer Commission.—A bill is pending at Albany which has for its aim the state control of the water and sewage system of all towns within its boundaries. The board of management is to have power to plan new sewage and water plants and to provide for the extension and improvements of old plants, and to exercise legal control over all conditions detrimental to public health.

Supposed Smallpox, as Usual, Smallpox.—A large number of cases of supposed smallpox has existed in Owego for a number of weeks, but Dr. Lewis and other physicians asserted that it was chicken-pox, and have opposed quarantine. Dr. G. B. Lewis and another patient broke quarantine at Owego and came to Buffalo riding in the trolley cars of that city to consult a specialist in order to prove that they had chicken-pox. When the specialist saw them he immediately reported the cases as smallpox to the health department at Buffalo, and the health authorities and the police are looking for the patients.

The State's Insane.—The tent treatment for the tuberculous and untidy insane has been pronounced successful. There were 147 alien lunatics returned to Europe, and in addition 104 non-resident insane were sent out of the state during the year. More rigid inspection of immigrants at the various ports of entry is needed to insure against alien insane. The commission suggests boarding out old harmlessly demented persons in private families. Since 1903 emergency cases can be sent to state hospitals for prompt examination and report by qualified experts. The new statute provides for the retention of a patient received on such certificate in state hospitals for a period not to exceed 5 days pending the procurement of judicial approval of the medical certificate. This obviates delays by reason of the absence of judicial officers at the time the patient is sent to the state hospital. In this connection the commission recommends the establishment of a temporary detention hospital in New York City and of accommodation at the state hospital in large cities for emergency cases in place of jails and station houses.

Buffalo.

Personal.—Dr. Burt Johnson has gone to Jamaica.——Dr. Roswell Park has sailed for Europe and will return in May.——A complimentary dinner was tendered to Dr. John H. Pryor.

Insane Patient Attacks Physician.—While examining a woman as to her sanity Dr. Floyd S. Crigo was attacked by her with a knife and pursued into the street, barely escaping. Later she was overcome by the police and committed to the state hospital.

Deaths in February.—The monthly report of the department of health for February shows an annual death rate of 14.43 per 1,000. The principal causes of death were as follows: Consumption, 45; debility, 47; cancer, 20; meningitis, 16; apoplexy, 29; valvular disease of the heart, 33; pneumonia, 66; and violence, 23. The total deaths for February, 1904, were 457, as compared to 474 for February, 1903.

Eddyite-Treated Child Dies.—Health Commissioner Greene and District Attorney Coatsworth are investigating the death of William Dobbertin, 5 years of age. The child died of diphtheria, and it is stated that the only treatment given the child was by Eddyism. The boy was treated by two women healers, who gave absent treatment, and during the short illness no examination was made of the throat. A physician was called, but found the child dead and reported the case to the health authorities. Several months ago a somewhat similar case was called to the attention of the grand jury through the medium of the district attorney, but the grand jury reported "no bill."

New York City.

Measles in Greater New York.—Up to March 19 there were 1,435 acute cases of measles in the five boroughs; a number greater than that in any year since 1898.

Pneumonia.—Latest reports show a mortality of more than 6,000 since the first of last December. This is an increase of 31 per cent. over last winter. Next year it is expected that the board of health will treat pneumonia as an infectious disease.

Bill Favoring Rockefeller Institute.—Senator Dowling has presented a bill which prohibits the opening of any street through lands occupied by the Rockefeller Institute for Medical Research, between East 65th and 67th streets in New York City.

Jail Declared Unsanitary.—Sheriff Hesterberg of Kings County has been served with a five-day notice by the department of health to vacate Raymond Street Jail, Brooklyn, which repeatedly has been declared unsanitary and in a dangerous condition.

Bellevue Overcrowded.—For the first time in the history of Bellevue Hospital 1,000 patients were housed there on March 12. The hospital has accommodations for only 857 patients. Considerable apprehension is causced by this number in view of the financial difficulties of several other hospitals in the city.

Ward in Roosevelt Closed.—As the result of the lack of funds the woman's surgical ward in Roosevelt Hospital has been closed. This makes the third ward in large hospitals in this city which has been compelled to close for lack of funds. At least $500,000 is needed to put Roosevelt Hospital on a sure footing.

Scarlet Fever and Measles in Bronx.—The Bronx Board of Health reports over 400 cases of measles and 150 cases of scarlet fever, with a daily increase of between thirty and forty cases. The Roman Catholic Orphan Asylum at King's Bridge is suffering from the epidemic. Since February 10 31 cases of scarlet fever have developed among 800 inmates.

New Masonic Hospital.—The Masonic Hospital and Shelter Association of Brooklyn has been incorporated for the purpose of maintaining a place where Masons can get medical and surgical care. For this purpose the upper floors of the Eastern Homeopathic Dispensary have been rented. The hospital will be opened as soon as the necessary repairs have been made.

Mount Sinai Hospital Open.—The new Mount Sinai Hospital was dedicated March 16. About 10,000 invited guests visited the hospital during the day. The new hospital is built on the pavilion plan, except that its ten buildings are connected by their ground floor corridors. All reasonable provision has been made for the standing needs of progressive medical science and hospital administration.

Dirty Money.—Dr. Darlington, health officer of New York, reports as a result of his investigation that bacteria do not live longer than forty-eight hours on silver, nickel and copper coins. Two dirty bills were washed, one contained 135,000 bacteria, the other 126,000. Two comparatively new bills contained respectively 2,250 and 2,000 germs. On all were found staphylococci, proving that money may carry disease.

Personal.—Dr. Lewis A. Stimson's yacht is being fitted out for a cruise in the Mediterranean and in British waters.——Dr. William T. Bull has been reported ill; appendicitis was feared. ——The following new appointments have been made at Columbia University: Dr. Edwin B. Cragin, professor of gynecology; Dr. H. M. Painter, clinical professor of obstetrics; Dr. Gorham Bacon, professor of otology, and Dr. William Kelly Simpson, professor of laryngology.——Dr. Heinrich Stern has severed his connection with the New York School of Clinical Medicine.

Financial Aid for Eye and Ear Hospitals.—Both the Manhattan Eye and Ear Hospital and the New York Eye and Ear Infirmary have been very much embarrassed financially and there was much anxiety as to whether they would be able to continue their work, at least in its entirety, but at a recent meeting of the board of managers of the New York Eye and Ear Infirmary the trustees subscribed personally and succeeded in raising about $26,000 of the $30,000 required for the coming year. The officials of the Manhattan Eye and Ear Hospital declared at their meeting on March 18 that there was no possibility of their closing any of their wards, as they had an annual income of $50,000, but that they still needed an endowment fund of $250,000.

PENNSYLVANIA.

Philadelphia.

Reception to Dr. Heller.—A reception was given at the Bingham House in honor of Dr. Henry D. Heller, state quarantine physician. Dr. Heller was presented with a handsome model of the new state quarantine tug, *Governor Pennypacker*.

Quarantine Removed.—The quarantine of the Methodist Episcopal Hospital established some time since, as the result of one of the employes being infected with smallpox, has been lifted, and visitors are now admitted to the institution.

Physician Injured.—Dr. Christopher A. Frame, while on his way to visit a patient, was struck by a freight train on the Pennsylvania railroad and received a very severe laceration of the scalp and several contusions of the shoulders and back. His injuries, however, are not likely to prove fatal.

Leper Discovered.—A leper was discovered in the lower section of the city during the past week. He had been in the city about three weeks and applied to a physician for treatment of some skin affection. Diagnosis of leprosy was made. The patient is now in charge of Dr. Schamberg, and efforts are being made for his deportation to Hawaii, the place of his nativity.

Interneships at Blockley.—The examinations for resident internes in the Philadelphia Hospital will be held early in April. The number of appointments to be made are 19, and these will be made in strict accordance with the average attained in the civil service examinations. Heretofore, equal representation in all medical colleges on the staff of internes had been assured. Now the men are to be appointed absolutely in accordance with the average attained.

Maragliano Can Not Come.—A cablegram received from Professor Maragliano by the Henry Phipps Institute, under whose auspices he was to lecture March 28, announces his sickness and inability to come. An abstract of his paper will be read at a luncheon to be given Monday by Dr. L. F. Flick to the delegates to the meeting to consider the tuberculosis congress situation. The delegates will also be entertained at dinner Monday by the Henry Phipps Institute. (The meeting of this committee is mentioned on the next page.)

Health Report.—There has been little or no abatement of typhoid fever during the past week. This has not been looked for. In fact, a large increase in cases was expected owing to the bad condition of the drinking water during the past few weeks. During the last week 141 new cases were reported, which is one less than reported during the preceding seven days. There were 21 deaths from typhoid, a decrease of 4 from last week. Smallpox is on the decline, the whole number of cases reported being 30. This is 18 less than the previous week. There were 7 deaths from smallpox, an increase of one over the preceding week. The deaths from all causes numbered 634. This is a decrease of 75 from those of last week and an increase of 99 over the corresponding week of last year.

Symptoms of Contagious Diseases.—Dr. Jay F. Schamberg lectured to the principals and teachers of the public schools on "Symptoms of Smallpox, Scarlet Fever and Measles." He said that more than 3,000 cases of smallpox have been treated since 1900 at the Municipal Hospital. Of this number not one individual had been recently successfully vaccinated. Moreover, not one patient received had a good scar of vaccination. The patients admitted comprised two classes: Those never successfully vaccinated, and adults not vaccinated since infancy or childhood. These statements, he said, held good for more than 8,000 smallpox patients treated by Dr. Welch in the Municipal Hospital during the last 33 years. During the past three years 120 nurses have been employed at the hospital, and not one has been affected with the disease. He said there was greater danger to an individual walking on the streets of a large city than in being vaccinated. In this city, from 1901 to 1903, 665 persons died of smallpox. Every one of these lives could have been saved. The man who refuses to have his children vaccinated is guilty of criminal negligence. In conclusion, he advised that teachers and parents should heartily co-operate with the department of health in the matter of school inspection in its crusade against disease.

GENERAL.

HALF FARE TO ATLANTIC CITY.

[By Special Telegram.]

Trunk Lines Grant Low Rate, and Other Associations Expected to Follow.

As The Journal goes to press, a telegram is received with the following announcement:

The Trunk Line Association has just granted a half-rate fare to the next session of the American Medical Association, and recommends that all other passenger associations do likewise. This means a half rate from practically all over the country. It is the first time that the Trunk Line Association has done better than a one and one-third rate; it has refused until to-day to do better this year. This rate means doubling the attendance at the Atlantic City session.

Personal.—Dr. T. Aoyama, dean of the Japanese National Medical University of Tokio, a prominent surgeon of Japan, has been visiting the United States on his way home from a period of study in Berlin.

Porto Ricans Want Medical Officers on Steamers.—The Ponce branch of the Chamber of Commerce of Porto Rico protests against the monopoly which controls trade with the United States, and mentions the lack of medical officers on the steamers. They suggest that regulations be made compelling boats engaged in passenger traffic to carry medical officers and necessary medicines and appliances.

Tuberculosis Congresses.—Dr. William Osler, chairman, and Dr. Henry B. Jacobs, secretary, announce that at a meeting of the tuberculosis committee (appointed at the Baltimore Exhibition), held in New York, February 27, it was decided to refer to a larger gathering the discussion of the question relating to organizations for the study of tuberculosis in this country. A meeting will be held for this purpose at the College of Physicians, 13th and Locust streets, Philadelphia, March 28, at 3:30 p. m.

October Health in Philippine Islands.—The rate of mortality in the Philippine Islands during October last was five times greater among the Filipinos, and nearly two and one-half times greater among the Chinese than among the combined American, Spanish and other European population. The poverty of the poorer classes is partially responsible for this. The authorities are endeavoring to secure better sanitary conditions and to prevent overcrowding. Of the total 1,279 deaths, 654, or 51.8 per cent., occurred within the first year of life. Eliminating cholera, which did not affect infants under one year, the infant mortality was 57.3 per cent. of the total. To reduce this infant mortality popular circulars, giving rules for the care of the newborn and for the feeding of infants, are being distributed. The more important causes of deaths were as follows: Infantile convulsions, 383; pulmonary tuberculosis, 110; cholera, 104; eclampsia, non-puerperal, 72; bronchitis, 117; diarrhea and enteritis, 56; congenital debility, 35; typhoid fever, 14. Pneumonia caused 5 deaths, bubonic plague, 2. The campaign of inspection and of extermination of rats to prevent plague is being carried on vigorously. A portable steam and formaldehyd disinfecting chamber, mounted on trucks, was ordered.

CANADA.

Vaccination in Montreal Schools.—The Montreal Health Department's report of school vaccinations shows that this season few scholars refused to undergo vaccination. In all 20,736 vaccinations were performed, there being absent from the schools 721 when the vaccinators called.

A Consumption Sanitarium for Hamilton, Ont.—At a public meeting at Hamilton, Ont., March 15, it was decided to organize a branch of the National Sanitarium Association. The medical health officer of Hamilton, Dr. Langrill, favored erecting a sanitarium on the brow of Hamilton mountain.

Deaths in Ontario for January.—The Ontario deaths in January were 2,188, or at the rate of 13 per 1,000, as against 2,150 in January, 1903, when the rate was 12.8. There were 102 cases of smallpox, as against 196 a year ago. Scarlet fever cases numbered 379 as against 500 in January, 1903. The deaths from contagious diseases were: Scarlet fever, 24; diphtheria, 59; measles, 2; whooping cough, 7; typhoid, 23; tuberculosis, 187.

Hamilton Hospital Rates.—The rates in the public wards of Hamilton General Hospital will be lowered from $3 to $2.80 per week. The difference, it is expected, will be more than made up by the additional government grant of 20 cents per day, for all patients paying under $6 per week. Private ward patients will hereafter pay $4.20 and $7 per week, instead of $4 and $6 per week. These changes will considerably increase the hospital's revenue. There is now considerable erysipelas in this hospital.

Furnishing the Toronto Free Consumption Hospital.—A meeting was held last week to make preparation for furnishing the Toronto Free Hospital for Consumptives, situated ten miles beyond the city limits. It was announced at this meeting that a site near the University of Toronto medical buildings had been secured for a dispensary building, from which free medicines will be dispensed for consumptives. A staff of nurses will also be maintained. The reports submitted showed that the National Sanitarium Association has thus far expended upward of $400,000 on this work in Ontario, of which $180,000 had gone into the building fund. Altogether 1,000 patients have been treated, and of 32 consumptives who were cured five years ago, 31 are now living. A large committee was formed to raise funds for the Toronto institution. The hospital is to be used for persons in the advanced stage.

FOREIGN.

Plague in Africa.—Bubonic plague has broken out in the Indian coolie district of Johannesburg, South Africa. Forty-two deaths have occurred.

Japanese Aid Virchow Memorial.—Four hundred dollars were recently received from Japanese physicians as a contribution to the fund to erect a memorial to Virchow at the Charité, Berlin.

Money for Medical Colleges.—Sir Donald Currie, one of the pioneers in the opening up of South Africa, has given $500,000 to the University College Hospital, London, Eng., for new medical buildings.

Anti-alcohol Colony in Italy.—The *Riforma Medica* announces that an English capitalist, named Charrington, has purchased an island off the coast of Italy to found thereon an anti-alcoholic colony.

Radium Treatment of Cancer Abandoned.—It is announced that the use of radium for the treatment of cancer has been discontinued at the London Cancer Hospital, and that attention will now be devoted instead to the use of high frequency apparatus. Radium did not seem to be of benefit.

Prize for Elimination of Intoxicating Properties of Alcohol.—The Russian minister of finance offered, just before the outbreak of the war, a prize of $25,500 for the discovery of a "denaturating" substance for alcohol which leaves no mineral residuum, does not contain caustic or poisonous elements and does not impart a repellent odor.

Second Latin-American Medical Congress.—April 3 to 10, 1904, is the date appointed for the opening of the Latin-American Congress of Medicine and Hygiene to be held at Buenos Ayres, Argentina. The exposition connected therewith is to remain open through April and May. It has been planned on an extensive scale.

"Consul" is Dead.—The trained chimpanzee, "Consul," valued at $125,000, succumbed recently to an acute lung affection at Berlin. He put up at good hotels and always had a room to himself, with engagements booked for two years in advance at a monthly salary of $4,000, and his life was insured for

$100,000. The *Gazette Méd. de Paris* has devoted considerable space during the last few months to descriptions of this almost human creature.

Children Summoned to Inspect Mad Dog.—A veterinary surgeon in a French town having a mad dog under observation sent for the children of the schools to come and inspect it. He did this to combat the general idea that a dog is not mad unless he is foaming at the mouth, etc. The children found this animal lying quietly in its cage, its mouth and tongue merely parched and feverish, and yet it was known to be a typical case of rabies.

Scotch Generosity.—The *Riforma Medica* states that the ophthalmologist, Prof. T. Reid of Glasgow, has presented $29,100 to the ophthalmic clinic at Turin, in charge of Professor Reymond, for the advancement of science, to aid in purchasing instruments and in paying the salaries of the officials connected with the clinic. His friendship for Professor Reymond is the motive for the endowment, and during his lifetime he is to receive an annual 3 per cent. interest on the sum.

Memorial to Hanot.—The *Archives Générales de Médecine* has opened a subscription to erect a memorial to its former editor, professor agrégé, V. Hanot, whose tragic death in 1896 will be remembered. The bust or tablet will be erected at the scene of his labors in the Saint-Antoine Hospital, Paris. The committee in charge ask for the names of friends and pupils of Hanot who might like to co-operate in this tribute. Address Hotel des Sociétés Savantes, 28 rue Serpente, Paris, France.

Suit for Return of Fees.—The professor of gynecology and obstetrics at the Russian university of Dorpat maintains a private hospital at Odessa. He received a wealthy patient into his hospital for an operation, and a fee of $102 was paid in advance. The patient died almost at once after the operation, and the family sued for the return of the money. Professor Solovieff declined to return it, saying that he had been to great expense in preparing for the operation. The local court has ordered him to return one-half the amount.

Battle of the Clubs in Italy.—At Biella, upper Italy, the medical officers of a mutual aid society were remunerated at the rate of four cents a visit, and not only forfeited this amount if they did not arrive at the bedside within half an hour of the summons, day or night, but were obliged to pay the fee of another physician summoned in their place if they failed to respond promptly. This state of affairs having proved unbearable, they have resigned and the other members of the profession are standing by them in refusing to accept positions in the society. One Italian exchange has coined the term "boycottaggio," whose origin is obvious, to express this concerted action on the part of the profession.

Proposed Hospital for Temporary Disability.—Babinski of Paris suggests the foundation of a hospital for semi-invalids, that is, for persons who are unable at times to work on account of temporary disability from exacerbation of some latent chronic affection. This asylum should also be open to such infirm persons for temporary shelter outside of exacerbations, if they find it impossible to obtain work. The shelter and the food provided should not be of such a character as would tempt them to linger in the asylum when they can do better outside. The inmates should only be admitted on presentation of a card given to them after a thorough medical examination. This intermediate station between the night shelters and the hospitals would relieve the latter of much trouble and expense, while it would prove a boon to many of these semi-invalids. It would also serve to eliminate the frauds.

The Russian Red Cross Society.—A French exchange states that the Russian Red Cross Society was founded in 1860 at Moscow, and now has more than 600 organized committees, 42 hospitals, 2 training schools for nurses, 8 soldiers' homes, one home for widows, 4 for orphans of soldiers and 2 sanatoria for children. There are more than 4,000 women nurses and a battalion of men nurses. Our Russian exchanges have contained of late many notices of the way in which relief work for the war has been systematically proceeding. The Red Cross supplies at Charbin now include nearly $40,000 worth of materials for dressings; they have medical supplies for 30,000 beds. Beside this, 26 field hospitals have been set up with 5,050 beds. To each 500 beds there are 5 physicians, one administrator, 15 women nurses, and 30 other attendants. Six of these have already been installed at Charbin. The society is being constantly and lavishly supplied with gifts of linen, preserves, wines and other delicacies with contributions of money. Holland is preparing a field hospital, and another is being equipped by Russians resident at Berlin, which will soon start for the seat of war.

Isolation of Consumptives in Paris Hospitals.—Sweeping changes are contemplated by the executive committee in charge of the Paris hospitals in order to conform to the ministerial decree in regard to the strict isolation of consumptives (mentioned in an editorial last week under the heading of "Tuberculophobia"). It is proposed to transform four of the hospitals, the Laennec, Hotel Dieu annex, Broussais and Bastion 27, into specials to receive tuberculous subjects only. This will supply 1,184 beds, with 909 additional in special pavilions in four other hospitals and 1,850 in four others, either extramural or in process of construction. There will thus be a total of 3,776 beds for subjects with pulmonary tuberculosis. They will be supplemented by 2 special dispensaries for tuberculosis in connection with the Laennec and Tenon hospitals. The scheme requires the suppression of twenty-two medical services, two surgical and one obstetric, and a radical revolution in several other respects. The local medical press does not regard the project with much favor, but is loyal in its support of the laudable intentions which have inspired the agitation of the subject. The suggestion to isolate the cases of "open tuberculosis" in a ward by walling off one end of the ward with glass partitions was offered by the Société Médicale des Hôpitaux as a simple and practical solution of the question, as mentioned in these columns, February 13. It has not been considered by the authorities as sufficiently radical.

Destruction of Rats in France.—The ravages caused by the field rats in agricultural districts of France have caused the government to take up the matter. A bill has been submitted by the government to the chamber of deputies providing for the issue of bonds to raise $70,000 to be applied to the destruction of field rats. Experiments have recently been made on a large scale in la Charente where a large tract of land—about 3,000 acres—was honeycombed with rat holes. The work was in charge of Danysz and Chamberland of the Pasteur Institute. Cultures of the bacillus which Danysz has found is pathogenic for field rats were spread on bread or oats and distributed in and near the rat holes. Over 10,000 pounds of bread and twice this amount of oats and 1,200 bottles of the virus were used. The results showed that 95 per cent. of the rats had been destroyed. The campaign progressed without mishap and no domestic animals were injured. It is unfortunate that no virus has yet been discovered effectual against the town rat, which is much more resistant. Roux believes that the prospects are bright for this achievement in the near future. The legislation now in progress contemplates that the land owners must pay a certain proportion of the expense of the anti-rat campaign. Rats are not only concerned in the transmission of the plague, but also of trichinosis. Certain epizootics are likewise due to them, as they transmit the germ, although they do not contract the disease. The Danysz cultures are perfectly harmless for persons handling them and for domestic animals.

LONDON LETTER.

The Middlesex Hospital and Cancer Research.

The Middlesex Hospital alone among the general hospitals of London devotes and reserves a number of its beds for the reception of the metropolis cases of cancer and lately has established a cancer research laboratory, which is under the direction of Dr. Lazarus Barlow. During the past year 100 cases of cancer have been treated with 3,040 applications of the *x*-rays, with results decidedly encouraging. In the large majority pain was diminished, if not dissipated, in a considerable number the disease was retarded, and in a few it underwent marked retrogressive changes. Radium has been tried, and several cases of lupus and rodent ulcer have healed more rapidly under it than under the *x*-rays or violet light. One branch of work for which the laboratory staff is responsible is the testing of the many alleged cancer cures brought forward from time to time. A considerable amount of time is thus spent without any corresponding advantage. Recently attention was widely drawn to the successful results alleged to have been obtained from Dr. Otto Schmidt's serum treatment. At the Abernethian Society of St. Bartholomew Hospital a physician who had been to Cologne and studied under Dr. Schmidt reported most gratifying results. His paper and the discussion which followed occupied more than five pages of the *Lancet*, and that journal devoted a lengthy editorial to it, though regarding its value as unproved. The experience of the Middlesex Hospital relegates this remedy to the place of all cancer cures. Nine patients voluntarily submitted to the injections. All that could be said of the specific was that it did no harm.

Correspondence.

"English Bards and Scotch Reviewers."

Philadelphia, March 17, 1904.

To the Editor:—In The Journal March 12, you "review" "Biographic Clinics," Vol. II. If you had taken the ordinary precaution of reading the volume doubtless you would have avoided the many misstatements, misquotations, and inaccuracies which destroy any possible value of your article as criticism. The volume will scarcely come into the hands of all the readers of The Journal, and fair play demands that, in the interests of impartial and dispassionate criticism, some, at least, of these misstatements and misquotations be pointed out.

1. You repeatedly speak of "the fourteen patients" whose cases are considered in the volume. There are but nine.

2. I did not "guess" that Parkman had ametropia; I demonstrated it by the prescriptions of his oculist.

3. You say that I include cancer as one of the diseases caused by eyestrain. There is not a line in the book authorizing this statement.

4. You aver that I refrain from telling what proportion of symptoms mentioned is caused by eyestrain. This is untrue.

5. In quotation marks you speak of some writing of mine called, "Why glasses did not fit." The phrase is unworthy the knowledge of even a first-year medical student. No essay of mine with such a title exists.

Your *review* is *proved incompetent and* your "*criticism*" worthless because:

A. You do not even mention the great contention of the volume—the demonstrated production of morbid symptoms by reading and writing and the immediate relief by stopping this near use of the eyes.

B. You do not even allude to the proofs that migraine may be the result of eyestrain: (*a*) the testimonies of public patients; (*b*) the testimonies of many American oculists; (*c*) my own testimony of the large number of patients I have cured by glasses alone.

C. You ridicule the work and assertions of "*diligent and energetic ophthalmologists*" and gibe at their emphasis of the reflex results of eyestrain, ignoring the fact that the oculists who believe in these results have, in comparison with The Journal and the reviewer, the better right to their opinion which comes from affirmative experience. It requires little knowledge, less experience, and no intellect, to echo musty traditions and "accepted views," but advancement comes not by that path.

D. You fail to name any of the "innumerable," the "uncountable," the "thousand," the "all," articles, papers, reprints, text-books, in which have appeared this theory as to eyestrain which you alternately deride as a "new doctrine" and announce as having been "persistently preached in medical journals any day these twenty years." My knowledge of ophthalmologic literature should, presumably, be at least as great as yours, but I would greatly appreciate the naming of but one poor hundred among the thousands to which you negligently allude.

E. You have not demonstrated your right to lecture the specialist on "the narrowing effect of his specialty" by proof of your own wide knowledge of medicine in all its directions and history, nor by the slightest evidence of unbiased judgment. This is particularly necessary in one who measures knowledge by negation instead of affirmation. Geo. M. Gould.

[1. There were, in all, fourteen important personages mentioned in volume II. whose symptoms were assumed to depend almost entirely on eyestrain; nine of these were considered at length in this volume. The ill health of the other five had been considered at greater length in a previous volume. In volume II. Dr. Gould frequently refers, as we did, to these fourteen.

2. Dr. Gould was not accused of "guessing" that Parkman had ametropia; it *was*, however, asserted that our "guess" (that the historian suffered from an asthenopia aggravated by or mostly due to neurasthenia) was quite as near the truth (or as far removed from it) as the author's, viz.: that his years of ill health were due to eyestrain curable by glasses.

3. We apologize to Dr. Gould for including cancer in the *catalogue of evils* (rheumatism, erysipelas, suicide, etc.), mentioned by him as the possible results of eyestrain. As he had mentioned cancer a few lines before and as it seemed to us quite as probable that eyestrain *might* produce rheumatic arthritis as this malignant neoplasm, we thoughtlessly added it.

4. If so we have searched his book in vain.

5. The exact title is "Sixty-eight reasons why 'glasses did not give relief.'"

A. We do not accept the statement that a patient's symptoms are inevitably due to eyestrain (curable by glasses) because some or even all of them are relieved by cessation from *near work* or because they are again brought on by renewed employment of the eyes. Everybody knows that many other conditions—neurasthenia, diseases of lids, heterophoria, lesions of the interior of the eye, etc.—may prevent the comfortable use of the visual organs. We have already insisted on that in some fourteen lines of fine print—one for each *patient.*

B. We have nowhere denied that now and then migraine is of ocular origin. We placed the proportion of cases curable by spectacles at less than 10 per cent. and declared that ophthalmologists and neurologists generally agree with us and not with Dr. Gould, who says (page 123, Vol. II.), "I have had thousands of patients with this disease (migraine) and 99 out of every 100 were cured by spectacles."

C. It was far from our intention to ridicule the belief in the reality of eyestrain and its consequence. We plead, however, for a saner view of the situation than that taken by Dr. Gould, who, in our judgment, greatly exaggerates the rôle of this factor in producing disease.

D. We stated that the "main facts of ametropic and heterophoric viciousness" have been published broadcast throughout this and other lands for many years and, in our opinion, have long been known, especially to the members of the medical profession in America. The demand for a "poor hundred" articles on the subject could (had we the space for them) easily be met by selections from the ophthalmic literature of the past few years—a period when the subject has become so utterly commonplace that few observers consider it worth their while to write on it.—Ed.]

Queries and Minor Notes.

Anonymous Communications will not be noticed. Queries for this column must be accompanied by the writer's name and address, but the request of the writer not to publish his name will be faithfully observed.

CHARGES FOR SERVICES TO PHYSICIANS AND THEIR FAMILIES.

Tennessee, March 11, 1904.

To the Editor:—Please answer, without using my name, the following: A physician is called on to attend a confinement. The woman's husband attended a medical college last year in his senior year, and applied for graduation, but failed to graduate. He was engaged at the time, and continuously since, in an occupation in no way connected with the practice or study of medicine. It is probable that, after legitimate professional expenses are deducted, his salary is equal to or exceeds the income of the physician who attended his wife. The physician remained with the woman from early morning until dark of one day, losing the entire day. The physician is employed for several hours each day in public health work at a per diem salary which is lost on the day referred to. Will you express an opinion as to (1) whether or not a fee ought to be charged; (2) is there anything in the *Principles of Ethics* to cover such cases? ——— L.

Answer.—1. Yes. 2. Yes. The Principles of Ethics say that gratuitous services should be limited to practicing physicians, their immediate family dependents, persons in indigent circumstances and certain public duties (sanitation and public hygiene).

CAISSON DISEASE.

Detroit, March 19, 1904.

To the Editor:—1. Can you tell me how I can get in touch with any available literature which treats of the pathology and treatment of diseases which are common to workmen in compressed air? 2. Do you know who publishes "Articles by Paul Bert" on the subject of compressed air? E. E. BRATTON.

ANSWER.—1. In Oliver's "Dangerous Trades" (E. P. Dutton & *Co., New York City*, $8), pages 728 to 737 discuss the subject. Most text-books on the practice of medicine give some space to it. A long list of references is given in the Index Catalogue of the library of the Surgeon General's office. You might address one of those mentioned in THE JOURNAL, Dec. 19, 1903, page 1553. 2. No. These appeared about thirty years ago.

SMALLPOX AND CHICKEN-POX.

ALABAMA, March 13, 1904.

To the Editor:—1. Is it possible for the eruption of varicella to so simulate variola as to invade the palms of the hands? 2. Is it possible for a patient to have variola without pains in the head, back or legs or other symptoms other than slight fever and eruption? 3. Give full differential diagnosis between smallpox (variola) and chicken-pox (varicella). SUBSCRIBER.

ANSWER.—1. Yes. 2. Yes. 3. We must refer you to any good text-book for this information.

STATES REQUIRING LICENSES TO PRACTICE.

NORTH CAROLINA, March 18, 1904.

To the Editor:—Please send me a list of all the states that do not require a license to practice medicine D. S.

ANSWER.—All states and territories except Alaska require licenses.

Marriages.

JACOB L. ALBRIGHT, M.D., to Miss H. Mabel Evans, both of Chicago, March 9.

DAVID SALINGER, M.D., Chicago, to Miss Amalie Frisch, at Baltimore, March 7.

NEVIN D. PONTIUS, M.D., Seattle, Wash., to Miss Edith B. Cole of San Francisco, March 2.

FRANK T. SIMONTON, M.D., Ellsworth, Maine, to Miss Marion Thayer of Charleston, Maine, March 8.

JOHN J. HANNA, M.D., Victoria, Texas, to Miss Georgiana Houser of Lincoln, Ill., at New Orleans, March 11.

Deaths.

William H. Hawkes, M.D. University of Pennsylvania, Philadelphia, 1874, a member of the American Medical Association; professor of materia medica and therapeutics, Georgetown University; member of the American Academy of Medicine, Medical Association of the District of Columbia, Medical Society of the District of Columbia; attending physician, Emergency Hospital; consulting physician, Providence Hospital; at one time assistant surgeon in the Army, died at his home in Washington, D. C., March 13, from acute gastritis, after an illness of two hours, aged 58.

William Frederick Holcombe, M.D. Albany (N. Y.) Medical College, 1850, of New York City, at one time professor of diseases of the eye and ear in New York University Medical College, New York Ophthalmic College and Hospital, and New York Medical College for Women; one of the founders of the New York Genealogical and Biographical Society and a member of the International Medical Congress, died in the Presbyterian Hospital, New York, March 17, after a short illness, aged 76.

Moreau Morris, M.D. College of Physicians and Surgeons, New York, 1848, a member of the American Public Health Association, health commissioner in 1866, and special medical inspector to all institutions for children; for thirteen years surgeon of the Seventh Regiment, N. G., N. Y., and later of the Seventh Veterans' Association, died at his home in New York City, March 17, aged 78.

Julius J. Kempe, M.D. Albany (N. Y.) Medical College, 1868, a member of the American Medical Association, for more than thirty years an esteemed practitioner of Rochester, N. Y.; a member of the Rochester City Hospital staff, and of the Monroe County Medical Society, who moved to Florida on account of ill health, in June, 1903, died at Pinellas, Fla., March 7, aged 60.

Dan Peaslee Webster, M.D. University of Vermont, Burlington, 1867, some-time postmaster of Brattleboro, member of the legislature from Putney in 1872 and 1874, and senator from Windham County in 1878, surgeon general of Vermont for two administrations, died at his home in Brattleboro, Vt., March 13, from Bright's disease, after a long illness, aged 57.

Hans Herman Behr, M.D. University of Berlin, Germany, 1843, scientist, entomologist and savant; who was given the degree of doctor "Honoris Causa," by his alma mater in 1898; vice-president and curator of the San Francisco Academy of Sciences in 1864, died at his home in San Francisco, March 13, aged 85.

John P. Edge, M.D. Jefferson Medical College, Philadelphia, 1846, a member of the state legislature from 1875 to 1878; originator of the bill establishing the State Board of Agriculture; a member of the county and state medical societies, died at his home in Downingtown, Pa., March 7, aged 81.

M. Thomas Brennan, M.D. Laval University, Quebec, 1884, professor in Laval University, gynecologist to Notre Dame Hospital, Montreal, a member of the Fourteenth International Medical Congress, died at his home in Montreal, March 12, from pneumonia following influenza, aged 42.

William Henry Seton, M.D. University of Maryland, Baltimore, 1898, a member of the American Medical Association, formerly of New York City, who went to Arizona on account of ill health two years ago, died at his home in Phoenix, February 11, from spinal meningitis, aged 31.

Leander Swartwout, M.D. Albany (N. Y.) Medical College, 1880, a veteran of the Civil War; member and some-time president of the Oneida County and New York State medical societies; once coroner of the county, died at his home in Prospect, N. Y., March 11, aged 61.

Spottswood Wellford Carmichael, M.D. Jefferson Medical College, Philadelphia, 1852, the third in direct line of his profession in the same town; a surgeon in the Confederate service, died at his home in Fredericksburg, Va., March 18, after an illness of one year, aged 73.

William Gulick, M.D. College of Physicians and Surgeons of the Western District of New York, Fairfield, 1837, formerly assemblyman, and once president of the State Board of Health, died at his home in Watkins, N. Y., March 16, from pneumonia, aged 90.

James S. McCorkle, M.D. University of Nashville, 1860, repeatedly mayor and recorder of Newbern, and for 25 years president of the local board of education, a confederate veteran, died at his home in Newbern, Tenn., from influenza, March 11, aged 66.

R. Edgar Zackery, University of North Carolina, Chapel Hill, 1897, M.D. North Carolina, 1898, of Wilmington, N. C., died at the James Walker Memorial Hospital in that city, from peritonitis, after an operation for appendicitis, March 12, aged 28.

Nathaniel T. Palmer, M.D. Medical School of Maine at Bowdoin College, Brunswick, 1842, one of the founders of the Maine Medical Association, who had practiced in Brunswick for 59 years, died at his home in that city, March 18, aged 87.

James Brownlee Sanford, M.D. Baltimore University, 1900, a member of the American Medical Association, and speaker of the Colorado House of Representatives, died at his home in Denver, March 16, from appendicitis, aged 35.

W. B. Fewell, M.D. Medical College of the State of South Carolina, Charleston, 1850, died at his home, Ebenezer, near Rock Hill, S. C., March 7, from gastritis, after an illness of two or three months, aged 76.

John Marion Watkins, M.D. Tulane University, New Orleans, 1871, a member of the American Medical Association, who had been in ill health for several years, died at his home in Opelika, Ala., March 12, aged 60.

Thomas E. Moore, M.D. Transylvania University, Lexington, Ky., 1841, died at his home in Bolivar, Tenn., where he had practiced for more than 60 years, March 10, after a long illness, aged 86.

C. E. Bernhard, M.D. Kansas City (Mo.) Medical College, 1884, of Visalia, Cal., died at his home, Deer Creek, Hot Springs, Cal., March 9, from pneumonia, after an illness of one week, aged 47.

John B. Harmon, M.D. University of Pennsylvania, Philadelphia, 1886, formerly of Pueblo, Colo., died from pneumonia at Waterloo, Iowa, March 15, after an illness of four days, aged 38.

James M. Duncan, M.D. Missouri Medical College, St. Louis, 1876, died at his home in Kansas City, Mo., March 11, aged 65.

Henry S. Farnsworth, M.D. University of Vermont, Burlington, 1860, died at his home in Clinton, Iowa, March 17, aged 71.

Azariah Judson, M.D. Berkshire Medical College, Pittsfield, Mass., 1845, died at his home in Athens, Pa., March 3, from paralysis, after an illness of several months, aged 82.

Henry Newell Small, M.D. Hahnemann Medical College, Chicago, 1866, died at his home in Chicago, March 15, from cerebral hemorrhage, after an illness of two days, aged 62.

John Edward Janney, M.D. University of Virginia, Charlottesville, 1874, died at his home in Winchester, Va., March 20, from chloroform accidentally self-administered.

Henry B. Eddy, M.D. Ohio Medical University, Columbus, 1900, died at his home, Shadyside, Bellaire, Ohio, March 16, from consumption, after an illness of one year.

James S. Whitaker, M.D. Jefferson Medical College, Philadelphia, 1879, died recently at his home in Cherry Hill, Md., from neuralgia of the heart, aged 56.

Middleton Stuart Hanckel, M.D. Medical College of the State of South Carolina, Charleston, died at his home in New York City, March 12, aged 75.

Robert H. Wyche, M.D., who retired from practice 35 years ago, died at his home in Cool Springs Township, Iredell County, N. C., March 6, aged 80.

Philander S. Brewster, M.D. Pennsylvania, died at his home in West Berwick, Pa., March 5, from paralysis, after an illness of two years, aged 73.

William F. Coates, M.D. Tulane University, New Orleans, 1856, died at his home in Wills Point, Texas, March 13, after a prolonged illness.

J. Henry Robinson, M.D. Albany (N. Y.) Medical College, 1856, died recently at his home in Southboro, Mass., and was buried March 14.

Endymion S. Brown, M.D. Cleveland Medical College, 1869, died at his home in Newark, Ohio, March 12, after a long illness, aged 74.

Warren T. Dameron, M.D. University of Louisville, 1849, of Lexington, Mo., died in La Junta, Colo., from paralysis, March 6, aged 83.

William G. Carter, M.D. Harvard University Medical School, Boston, 1869, died at his home in Concord, N. H., March 10.

James Sanford, M.D. Jefferson Medical College, Philadelphia, 1857, died recently at his home in Collierstown, Va., aged 74.

George H. Neal, M.D. Hahnemann Medical College, Chicago, 1881, died at his home in Falls City, Neb., March 15.

Newton H. Curtiss, M.D. Syracuse (N. Y.) University, 1878, died recently at his home in Manlius, N. Y.

J. George Battell, M.D. Trinity Medical College, Toronto, 1895, of East St. Louis, Ill., died March 10.

Josiah B. Fox, M.D. Ohio, died at his home in Cleveland, March 10, aged 68.

Deaths Abroad.

A. Spiess, M.D., editor of the German quarterly for public health, and noted for his numerous works on matters affecting the public health, died at Frankfurt, February 1, aged 71.

J. J. Flores, M.D., formerly minister of the interior in the Republic of Costa Rica, and dean of the faculty of medicine at San José, died there February 2.

State Boards of Registration.

COMING EXAMINATIONS.

Regular Board of Medical Examiners for Georgia, Atlanta, March 30; Augusta, April 2. Secretary, I. H. Goss, M.D., Athens.

Arizona Board of Medical Examiners, Phoenix, April 4. Secretary, Wm. Duffield, M.D., Phoenix.

Utah State Board of Medical Examiners, Salt Lake City, April 4. Secretary, R. W. Fisher, M.D., Salt Lake City.

Board of Medical Examiners of Montana, Helena, April 5. Secretary, Wm. C. Riddell, M.D., Helena.

North Dakota State Board of Medical Examiners, Grand Forks, April 5. Secretary, H. M. Wheeler, M.D., Grand Forks.

Board of Medical Examiners of the State of California, City Hall, San Francisco, April 5. Secretary, Geo. G. Gere, San Francisco.

Idaho State Board of Medical Examiners, Boise, April 6. Secretary, R. L. Nourse, M.D., Hailey.

Minnesota State Board of Medical Examiners, State Capitol Building, St. Paul, April 5-7. Secretary, C. J. Ringnell, M.D., Minneapolis.

Tennessee State Board of Medical Examiners, Memphis, Nashville and Knoxville, April 6-7. Secretary, T. J. Happell, M.D., Trenton.

Illinois State Board of Health, Chicago, April 6-8; April 25-27, and East St. Louis, May 4-6. Secretary, J. A. Egan, Springfield.

Rhode Island State Board of Health, State House, Providence, April 7-8. Secretary, Gardner T. Swarts, M.D., Providence.

State Medical Board of the Arkansas Medical Society, Little Rock, April 12. Secretary, J. P. Runyan, M.D., Little Rock.

Missouri State Board of Health, Kansas City, April 12-14. Secretary, W. F. Morrow, M.D., Kansas City.

West Virginia State Board of Health, Clarksburg, April 12-14. Secretary, Hugh A. Barbee, M.D., Point Pleasant.

Vermont State Board of Medical Censors, Y. M. C. A. Building, Rutland, April 13-14. Secretary, S. W. Hammond, M.D., Rutland.

Board of Medical Supervisors of the District of Columbia, Washington, April 14. Secretary, Wm. C. Woodward, M.D.

Board of Medical Examiners for the State of Texas, Austin, April 21-23. Secretary, M. M. Smith, M.D., Austin.

State Board of Medical Examiners of Iowa, April 14-15 at Keokuk, April 20-21 at Des Moines. Secretary, J. F. Kennedy, M.D., Des Moines.

Arkansas Report.—Dr. J. P. Runyan, secretary of the State Medical Board of the Arkansas Medical Society, reports that at the written examination held at Little Rock, Jan. 12, 1904, 70 questions were asked on 7 subjects, and a percentage of 60 was required. Of the 14 who were examined 11 passed and 3 failed; 4 who passed and 2 who failed were graduates, the rest were not graduates.

PASSED.

College.	Year Grad.	Per Cent.
Kansas City Medical College	(1880)	75
Vanderbilt University	(1903)	83
Indiana Physiomedical College	(1900)	64
University of Pennsylvania	(1898)	85

FAILED.

College.	Year Grad.	Per Cent.
Arkansas University		57
University of Louisville		55

Oklahoma Report.—Dr. E. E. Cowdrick, secretary of the Oklahoma Board of Health, reports that at the written examination held at Enid, Dec. 29, 1903, 90 questions were asked on 9 subjects, and a percentage of 66 2/3 in each branch was required. Of the 10 applicants 5 failed, one not being a graduate. Those who passed were from the following colleges:

College.	Year Grad.	Per Cent.
Louisville Medical College	(1887)	84
Georgetown University	(1901)	85
University of Victoria College, Toronto, Canada	(1882)	85
Chicago Homeopathic Medical College	(1897)	83
St. Louis College of Physicians and Surgeons	(1900)	83

The four graduates who failed were from Ky. School of Med., 1876; Bennett Med. Coll., 1887; Keokuk Coll. P. and S., 1898, and Barnes Med. Coll., 1896.

Ohio December Report.—Dr. Frank Winders, secretary of the Board of Medical Registration and Examination of Ohio, reports the written examination held at Columbus, Dec. 8-10, 1903. The percentage required to pass was 75, and 90 questions were asked on 9 subjects; 31 were examined, 28 passed and 3 failed. Those who were graduates were as follows:

PASSED.

College.	Year Grad.	Per Cent.
University of Michigan	(1901) 93, (1902)	83, 91
Grand Rapids Medical College, Michigan	(1903)	75
Medical College of Ohio	(1879)	77
University of Buffalo	(1891)	90
Western Pennsylvania Med. Coll., Pittsburg	(1887)	82
University of Pennsylvania	(1902) 87, 90, (1903)	94
Johns Hopkins University	(1903)	87, 79
Cleveland College of Physicians and Surgeons	(1903)	87
Jefferson Medical College, Philadelphia	(1903)	85
Illinois Medical College, Chicago	(1903)	81
Rush Medical College, Chicago	(1903)	89
Dartmouth Medical College, Hanover, N. H	(1900)	87
New York Homeopathic Medical College	(1894)	79
Harvard Medical School	(1900)	86
University of Maryland, Baltimore	(1900)	79
Women's Medical College of Pennsylvania	(1903)	85
University of Naples, Italy	(1902)	75
College of Physicians and Surgeons, Chicago	(1900)	84

FAILED.

College.	Year Grad.	Per Cent.
University of Louisville, Kentucky	(1894)	69
Hospital College of Medicine, Louisville	(1903)	63

The Public Service.

Navy Changes.

Changes in the medical corps of the Navy, week ending March 19, 1904:

Ferebee, N. M., medical director, detached from the Navy Yard, Washington, D. C., and granted sick leave for six months.

Peck, A. E., asst.-surgeon, granted sick leave for two months.

Marine-Hospital Service.

Official list of the changes of station and duties of commissioned and non commissioned officers of the Public Health and Marine Hospital Service, for the fourteen days ended March 17, 1904

Weitenbaker, C P surgeon, to report at Washington, D C, for special temporary duty.

Wickes, H V, P. A surgeon, granted leave of absence for one day

Von Ezdorf, R H, P A surgeon, to proceed to Delaware Breakwater Quarantine for special temporary duty Relieved from special temporary duty at Delaware Breakwater Quarantine on account of sickness and directed to rejoin his station at the Hygienic Laboratory, Washington, D C

Boggess, J S, asst surgeon, Bureau letter of March 2, granting eight days' leave of absence from Feb 18, 1904, amended so that said leave shall be on account of sickness

Simonson, G T, A A surgeon, granted leave of absence for five days from March 15

Staton, L W, A A surgeon, granted leave of absence for two days from March 3

Carter, H R, surgeon, to proceed to New Orleans and attend conference of quarantine officers March 14

Brooks, S D, surgeon, Department letter granting leave of absence for four months from April 1, 1904, amended to read four months from April 6, 1904

Guiteras, G M, surgeon, Department letter granting leave of absence for three months from Dec. 19, 1903, amended to read two months and five days from Dec. 19, 1903

McMullen, John, P. A surgeon, to proceed to Immigration Depot, New York, and report to Surgeon G. W. Stoner for duty

Grubbs, S B, P A surgeon, granted leave of absence for twelve days from March 18

Richardson, T F., asst-surgeon, relieved from duty at New Orleans and directed to proceed to Laredo, Texas, and assume command of service at that port March 16

Francis, Edward, asst surgeon, to proceed to Delaware Breakwater Quarantine and assume temporary charge of station during illness of P. A. Surgeon C. H Lavinder March 10

Bullard, J. T, A A surgeon, granted leave of absence for twenty seven days from March 4

Moncure, J A, A. A surgeon, granted leave of absence for thirty days from April 1.

Nall, R P, A. A. surgeon, granted leave of absence for seven days from March 1, under Paragraph 210 of the Regulations

Sibree, H C., A A. surgeon, granted leave of absence for five days from March 15

Simonson, G T, A A surgeon, Bureau letter of March 10, granting leave of absence for five days from March 15, amended to read five days from March 22

Stanton, J G, A A. surgeon, granted leave of absence for thirty days from March 8

Thurston, E J, pharmacist, granted leave of absence for seven days from March 9, under Paragraph 191 of the Regulations

Kolb, W. W., pharmacist, granted leave of absence for twenty-eight days from April 2

APPOINTMENT

Dr Melvin M Hopkins appointed A A surgeon for duty at Ketchikan, Alaska

BOARDS CONVENED

Boards convened March 21 as follows for the physical examination of officers of the Revenue Cutter Service.

At New Orleans · Detail of the board Surgeon C P Weitenbaker, chairman, P A Surgeon L L Lumsden, recorder

At San Francisco Detail for the board P A. Surgeon W. G Stimpson, chairman, Asst surgeon Carl Ramus, recorder

At Port Townsend, Wash Detail for the board P A Surgeon J N Oakley, chairman, P A Surgeon M H Foster, recorder

Board to meet at Washington, D C, on the call of the chairman for the physical examination of officers for promotion and applicants for admission into the Revenue Cutter Service Detail for the board · Asst Surgeon General L L Williams, chairman, Asst-Surgeon General W J Pettus, recorder

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Health Reports.

The following cases of smallpox, yellow fever, cholera and plague have been reported to the Surgeon General, Public Health and Marine-Hospital Service, during the week ended March 18, 1904:

SMALLPOX—UNITED STATES

California San Francisco, Feb 21 28, 5 cases

District of Columbia Washington March 5 12, 2 cases

Florida Jacksonville, March 5 12, 2 cases

Illinois Belleville, Feb 26 March 12, 2 cases, March 5 12, Chicago, 1 case, Danville, 1 case, Galesburg, 1 case

Maine: Madawaska region, Feb 27 March 5, 11 cases

Maryland Baltimore, March 5 12, 2 cases

Michigan Detroit, March 5 12, 1 case

Missouri St Louis, March 5 12, 11 cases

New Hampshire Manchester, March 5 12, 5 cases

New Jersey Camden, March 5 12, 2 cases, 1 death

New York · March 5 12, Buffalo, 4 cases; New York, 5 cases.

Ohio · Cincinnati, Feb 26 March 11, 7 cases, 1 death; March 5 12, Dayton, 2 cases, 4 deaths, Toledo, 1 case

Pennsylvania March 5 12, Johnstown 1 case, McKeesport, 1 case; Philadelphia 48 cases, 6 deaths; Pittsburg, 2 cases, 1 case imported

South Carolina March 5 12, Charleston, 1 case, Greenville, 9 cases

Tennessee Nashville, March 5 12 12 cases

Wisconsin: Milwaukee, March 5 12, 3 cases

SMALLPOX—FOREIGN.

Austria · Prague Feb 20 27, 9 cases

Belgium · Antwerp, Feb 14 21, 7 cases, 4 deaths

Canada Ontario, 24 localities, Jan 1-31, 103 cases; Quebec, March 5 12, 3 cases

France Marseilles, Feb 1 20, 25 deaths, Paris, Feb 20 27, 38 cases 1 death

Great Britain Feb 20 27, Edinburgh, 16 cases, 13 deaths, Hull, 6 cases, Leith, 3 cases, London, 5 cases; Newcastle on Tyne, 5 cases; Nottingham, 14 cases; Glasgow, Feb 26 March 4, 30 cases, 2 deaths

India: Bombay, Feb 9 16 5 deaths, Karachi, Feb 7-14, 5 cases, 1 death

Italy: Palermo Feb 20 27, 1 case

Malta, Feb 13 20, 1 case, 1 death

Mexico: March 9. La Cananea, present; Magdalena, 8 cases, Torrsen, Feb 21, epidemic.

Netherlands: Amsterdam, Feb 20 March 5, 2 cases

Russia: Feb 13 20, Moscow, 8 cases, 1 death, Odessa, 2 cases; St Petersburg, Feb 13 27, 17 cases, 5 deaths.

Spain: Barcelona, Feb 1-29, 7 deaths; Santander, Feb 22 29, 4 cases, 1 death

Turkey: Constantinople, Feb 21-28, 5 deaths

YELLOW FEVER—UNITED STATES

Texas: Laredo, March 14, 1 case It is not yet determined whether this case was imported or not All precautions taken

YELLOW FEVER—FOREIGN.

Mexico: Merida, Feb 28 March 5, 1 case, 2 deaths

CHOLERA

India: Feb 6 13, Calcutta, 19 deaths; Madras, 1 death

PLAGUE—UNITED STATES

California: Concord, Feb 29, 1 death Bacteriologically confirmed March 12

PLAGUE—FOREIGN.

Egypt: Alexandria, Jan 30 Feb 13, 1 case

India: Bombay, Feb 8 16, 550 deaths; Calcutta, Feb 6 13, 45 deaths; Karachi, Feb 7-14, 69 cases, 34 deaths

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Medical Organization.

Missouri.

Jasper County Association of Physicians and Surgeons.—Physicians of the county met at Joplin, February 25, and organized a medical society on the standard plan, with the following officers: President, Dr. John S. Long, Joplin; vice-president, Dr. William Lothian, Joplin; secretary, Dr. Joel E. Johnson, Joplin; treasurer, Dr. William H. Woodson, Webb City, and censors, Drs. James T. Stamey, Chitwood, Colby C. Gentry, Webb City, and Martin T. Balsley, Joplin.

Rhode Island.

Rhode Island Medical Society.—At the regular quarterly meeting of this society in Providence, March 3, the constitution and by-laws recommended by the American Medical Association was adopted. Dr. John Champlin, Westerly, was appointed delegate to the national association, and Dr. Frederick T. Rogers, Providence, alternate.

Tennessee.

Jackson County Medical Society.—This society was organized at Gainesboro March 14 Dr. S. Benjamin Fowler was elected president; Dr. Henry P. Loftis, vice-president, and Dr. Charles E. Reeves, secretary and treasurer, all of Gainesboro.

Texas.

Colorado County Medical Association.—Dr. Walter Shropshire, Yoakum, councilor for the Eighth District, organized a county association at Columbus, March 10, with an initial membership of 15.

Fort Bend County Medical Association.—This association was organized at Richmond, March 9, and the following officers were elected: President, Dr. J. Clyde Johnson, Richmond; vice-president, Dr. J. Mark O'Farrell, Richmond; secretary, Dr. Sidney M. Lister, Richmond, and treasurer, Dr. H. C. Boone, Fulshear.

Hays County Medical Association.—This society was organized at San Marcos with fourteen members and the following officers: Dr. Adam J. Beall, San Marcos, president; Dr. John C. Carpenter, Kyle, vice-president; Dr. Terry Kinney, San Marcos, secretary and treasurer; Drs. James H. White, Kyle, John C. Carpenter, Kyle, and Edgar P. Shelton, Dripping Springs, censors, and Dr. Robert C. Atkinson, San Marcos, delegate to the state association.

Navarro County Medical Association.—Dr. James J. Roberts, Hillsboro, met the physicians of the county at Corsicana, and assisted in the organization of a medical society on the standard plan, with the following officers: Dr. B. W. D. Hill, Dawson, president; Dr. John M V. Wills, Corsicana, vice-president; Dr. William T. Shell, Corsicana, secretary-treasurer; Dr. Clay Johnson, Corsicana, delegate to state association; Dr. Thomas V. Fryar, Corsicana, alternate, and Drs. Leslie E. Kelton, Corsicana, Wade D Fountain, Corsicana, and David B. Currie Kerens, censors

Society Proceedings.

COMING MEETINGS.

American Association of Pathologists and Bacteriologists, New York City, April 1-2.
Medical Association of the District of Columbia, Washington, April 5.
Tennessee State Medical Association, Chattanooga, April 12.
South Carolina Medical Association, Darlington, April 13.
Medical Association of the State of Alabama, Mobile, April 19.
Medical Society of the State of California, Paso Robles, April 19-21.
Florida Medical Association, Live Oak, April 20.
Medical Association of Georgia, Macon, April 20.
Mississippi State Medical Association, Jackson, April 20.
Texas State Medical Association, Austin, April 26.
Medical and Chirurgical Faculty of Maryland, Baltimore, April 26-28.
Arizona Medical Association, Tucson, April 27-28.

NEW YORK STATE MEDICAL ASSOCIATION.

Special Meeting, held in New York, March 21, 1904.

The President, Dr. William H. Thornton, in the Chair.

[By telegraph from our Special Correspondent.]

The Consolidation Ratified.

A special meeting of the New York State Medical Association was held Monday, March 21, to hear and act on the report of the Committee on Conference with the Medical Society of the State of New York, concerning the proposed union of the two bodies. Dr. E. Eliot Harris, chairman of the committee, read the report and Dr. J. D. Bryant offered the following resolutions:

Resolved, That the report of the joint committee of conference be accepted, and that the proposed agreement for the consolidation of the Medical Society of the State of New York and the New York State Medical Association be and the same is hereby approved and the president of the association is hereby authorized and directed to execute the same in the name and behalf of the association, and the secretary is hereby authorized and directed to affix the corporate seal thereto, and be it further

Resolved, That the committee of the association heretofore appointed for the purpose of bringing about the consolidation, namely, Dr. E. Eliot Harris, Dr. Julius C. Bierwirth, Dr. Alexander Lambert, Dr. Parker Syms and Dr. Wisner R. Townsend, be and they are hereby continued as such committee, with full power and authority to do whatever may be necessary to carry the agreement into effect.

On motion these were unanimously adopted.

Action was also taken requesting the county associations in affiliation with the state association to ratify this action.

Thus the two state bodies have each unanimously voted in favor of amalgamation on the plans recommended by the joint committee.

NEW YORK COUNTY MEDICAL ASSOCIATION.

Special Meeting, held March 21, 1904.

[By telegraph from our Special Correspondent.]

State Association's Action Endorsed.

Following the session of the New York State Medical Association reported above, the New York County Medical Association met and unanimously voted to ratify the action taken by the state association in approving the joint committee's plans for union. The resolutions passed were as follows:

Resolved, That the New York County Medical Association hereby ratifies, approves and adopts the agreement for the consolidation of the Medical Society of the State of New York and the New York State Medical Association, which was unanimously approved and adopted at the annual meeting of the Medical Society of the State of New York, held at Albany, Jan. 26, 1904, and by the New York State Medical Association at a special meeting held in New York City, March 21, 1904; and the New York County Medical Association hereby waives notice of an application to court for an order consolidating said corporation pursuant to the terms of said agreement, and hereby consents to the entry of such an order without notice; and be it further

Resolved, That the secretary of this meeting be and he is hereby authorized and directed to send a copy of these resolutions, duly certified by the president and secretary of the meeting, to the secretary of the New York State Medical Association, and to execute and deliver any and all waivers of notice of an application for such order as the court may require.

KANSAS CITY ACADEMY OF MEDICINE.

Regular Meeting, held March 5, 1904.

The President, Dr. C. A. Ritter, in the Chair.

Bronchial Sapremia.

Dr. Robert Sloan read a paper on this subject with a minute clinical report of a case. The features of the case were as follows: Cause, neglected influenza; patient an adult, male, persisted at his work for one week when a severe exacerbation confined him to his bed. The temperature was erratic for four weeks, ranging from normal to 104 F. There were frequent and irregular sweats and chills. There was severe pain in the left side of the chest with much coughing, foul tongue and fetid breath. The perspiration was very offensive and there was great muscular weakness. There were no physical signs of pneumonia. At first the sputum was scanty, but later a very offensive reddish-colored sputum was raised by paroxysms of coughing at intervals varying from one-half to five hours. This sputum had the appearance of being pneumonic, but was not glutinous and did not possess any cellular elements nor fibrin. It was rich in saprophytes and very acrid so that spasm of the glottis occurred with each expulsion. Acute laryngitis and tracheitis ensued. The salmon-colored sputum was small in quantity and perfectly distinct from the ordinary grip sputum, which was coughed up continuously. It was apparently due to putrefaction of bronchial mucus. The violent spasm of the glottis was controlled by spraying the larynx with adrenalin chlorid solution. Within a few minutes after the first putrid sputum appeared the voice, which had previously been normal, became hoarse and sank to a stage whisper. This condition remained for three weeks and then gradually improved for three weeks more, when it had returned to normal.

The diagnosis was grip complicated, not by pneumonia, putrid bronchitis, nor bronchiectasis, but by bronchial sapremia. The cause was probably the inhalation of a small particle of decomposing food or of inspissated mucus from the nasopharynx during an effort to clear that passage by quick, forcible inspiration through the nasal passages. The inspired particle probably entered a small bronchial tube and set up a localized putrefactive process instead of producing an aspiration pneumonia such as would ordinarily be expected.

DISCUSSION.

Dr. Frank J. Hall, who did the microscopic work on this case, said that he found a leucocytosis of 18,000 just before the first putrid sputum was expelled. In the sputum there was an abundance of Pfeiffer's bacillus and a great number of saprophytic germs, some motile and others non-motile. Some were a chromogenic and the color was due to chromogens which they generated.

The paper was also discussed by Drs. *Hal Foster, J. W.* Kyger and C. Lester Hall.

MANILA MEDICAL SOCIETY.

Annual Meeting, held at the Government Biological Laboratory, Jan. 4, 1904.

Officers.

The following officers were elected for 1904: Dr. R. P. Strong, president; Dr. W. E. Musgrave, secretary-treasurer; and the council as follows: Drs. Paul C. Freer, John Maye, John R. McDill, Paul G. Woolley and E. C. Carter.

Papers.

The papers were read by Drs. J. R. McDill and W. B. Wherry on an infection of the hand, by Dr. R. P. Strong demonstrating certain human parasites, and by Dr. F. W. Dudley. The latter is president of the board of health for Pampanga Province, and gave a very interesting statistical study of the prevalent diseases, their modes of transmission and the practices of the native physicians and the customs of the people in regard to medical matters.

Annual Report of the Secretary.

The report of the secretary for the year ending Dec. 31, 1903, showed that on Jan. 1, 1903, the society consisted of 14 active members. During the year 18 active and 3 associate members were admitted; 1 was dropped, 1 resigned and 1 died. This left 29 active and associate members.

By requirement of the constitution and by-laws, and acting under the direction of the society and its council, the secretary commenced early in the year to secure the names, addresses and other data of importance regarding every legalized practitioner of medicine in the Philippine Islands. This has been found to be a very difficult task and has only been completed within the past month. The large amount of necessary printing, paper, postage and typewriting necessitated the expenditure of considerable money. This desired data had all been secured, had been catalogued by the card index system, and was on file with the records and papers of the society.

Some very interesting information had been secured by these inquiries, which, it was announced, would be made the subject of a special report to the society.

Monthly Meeting, held Feb. 1, 1904.

This meeting was a very enthusiastic and interesting one. **Dr. Paul C. Freer** discussed the history of "Stereochemistry" from its discovery by Pasteur in the study of tartaric acid to the present time and applied its teachings to a theoretical explanation of immunity.

Surgery in the Philippines.

Dr. J. M. Banister, after giving a most interesting statistical report of more than four hundred surgical operations performed by himself and assistants at the First Reserve Hospital during the past year, refuted the statements sometimes made in the medical press of the United States that bad results often follow operations performed in the Philippine Islands and that convalescence was unsatisfactory. He showed that clean technic gave as satisfactory results in Manila as in any other country.

NORTH BRANCH PHILADELPHIA COUNTY MEDICAL SOCIETY.

Regular Meeting, held Feb. 10, 1904.

Dr. Samuel Wolfe in the Chair.

Mercury in Therapeutics.

Dr. I. Newton Snively read a paper on "The Unique Position and Value of Mercury in Therapeutics," in which he stated that in the frequency of its employment, it compared favorably with iron, but that here the similarity ended, the one being a builder up of tissue, while the other is a breaker down of tissue. He called attention to the fact that mercury had through all the ages occupied a prominent position in the materia medica, and reviewed the history of its use and the improvements in its administration in recent years. Without deciding on the relative cholagogic values of blue mass, calomel and corrosive sublimate, or their means of action, he stated that there was agreement among the profession on the main indications for the administration of calomel, when such symptoms are present as dull headache, yellow conjunctiva, constipation, sense of weight over the liver, no appetite and general lassitude, and whether the process takes place in one part or the other of the intestinal tract it is agreed that it acts on the small intestines and the upper part of the colon, hastening the contents downward, relieving hepatic engorgement, stimulating intestinal secretions and bile and producing large, watery stools. It is also of value in fractional doses in the early stages of typhoid fever and the diarrheal maladies of childhood. It passes through the stomach unchanged and thus does not interfere with the functions of this organ. Thorough trituration is of value and the joint administration of an alkali, preferably sodium bicarbonate, increases its effectiveness.

Therapeutics of Arsenic.

Dr. Howard S. Anders read this paper and stated that the drug was an alterative, and while referring to the fact that the exact conditions produced by it were not known he called attention to the necessity of carefully watching for symptoms of arsenical poisoning when the treatment is long continued. The drug is an improver of nutrition and it would seem to be a direct stimulant to nutrition, by diminishing or checking the tissue change and indirectly it improves the nutrition by increasing the recuperative powers, and it would seem that some individuals need arsenic to create a normal neuromuscular vigor, just as the syphilitic needs the iodids and the chlorotic, iron. He referred to the fact that Gautier of Paris had discovered arsenic in the human body and also that M. Berhand of Paris had discovered it in hens' eggs, which would indicate the necessity for supplying it when absent. In regard to its employment in tuberculosis, he acknowledged a hesitancy in its use on account of the likelihood of deranging the mucosa. The natural arsenical waters of Levico are valuable in some cases of this disease.

He stated that his experience with the drug in the treatment of chorea extended to about twenty cases, in all but two of which the administration in the form of Fowler's solution in gradually ascending doses, in conjunction with dietetic, hygienic and psychic measures, was satisfactory. He remarked that in St. Vitus' dance, the drug seemed to be almost a specific, and believed it was best administered by beginning with about three drops and increasing about two or three drops each successive day. He referred to the work of Rope, Waxham and others, the latter of whom recommends the hypodermic use of the arsenite of soda, beginning with 1/10 grain doses and rapidly increasing to 1/2 or 2/3 grain doses. He considered the drug of great importance in the treatment of chronic malaria, anemias, cachexias, in the recurrent malarial fevers, and in intermittent malarial neuralgias. He had suffered from tertian malarial fever each spring and autumn until he took the drug, off and on for three months, continuing until the first symptoms of gastrointestinal irritability manifested themselves, since which time (fourteen years ago) he has not had any symptoms of the disease In certain cases of pernicious anemia and arthritis deformans, he believed that it had a beneficial effect. In scrofulous conditions, glandular enlargement and bronchial catarrhs, it is also of value.

Digitalis.

Dr. William Egbert Robertson reviewed the various pharmaceutic preparations and their actions and believed the preparation made from Allen's leaves to be the most valuable. In regard to digitoxin the chemistry is very incomplete; it seems to have some effect in relieving the blood pressure, but during its administration the volume of urine and pulse rate should be noted from time to time in order to avoid the possibility of cumulative action. He preferred the infusion, and stated that he had not secured nearly so good results by using the digitalin as by using the digitalis in two-dram doses every three hours. The drug is employed chiefly for its effect on the circulation and especially after loss of cardiac power; in cases of weakness without valvular disease, in simple dilatation, and in all forms of valvular heart disease, especially mitral disease, it is of value. In simple hypertrophy, aneurism and a high degree of arterial sclerosis, it is contraindicated.

DISCUSSION.

Dr. Hobart A. Hare referred to the value of 1/200 grain doses of biniodid of mercury, in a watery solution every six to eight hours, for the purpose of aborting acute tonsillitis. He believed that all preparations of mercury were contraindicated in cases of tuberculosis, and believed that one of the chief reasons for the value of calomel in cases of intestinal disturbance was on account of its power of eliminating intestinal impurities. He believed arsenic to be of value in tuberculosis and anemia, as are also small doses of arsenate of copper in some cases of the latter disease, when iron does not seem to do so well. In regard to digitalis, he believed chemically and physiologically tested and carefully prepared fluid extract was the best, and recommended that the physician have it put up regularly in a known strength by certain reliable pharmacists. He felt that many cases of untoward results in the administration of digitalis were due to the fact that the physician was not thoroughly familiar with the strength. He also referred to the danger of the cumulative effect of digitalis, caused by the non-absorption of the drug at the time of its administration, believing that when the required dose is ascertained the patient should be kept there, instead of increasing it. Absorption is also aided by the conjoint administration of mild doses of Hoffman's anodyne.

Dr. Ludwig Loeb referred to the value of calomel in conjunction with some active diuretic in the treatment of dropsical conditions. In the administration of mercury in tertiary syphilis and other diseases, it is very apt to produce mercurialism, which should be carefully watched for and the drug discontinued so soon as these symptoms appear. Arsenic, he remarked, was particularly effective in diseases of the glandular structures. It is also of value in skin diseases, such as psoriasis and lupus, and in anemia. Digitalis he did not view as a true dieuretic, but rather as a heart tonic, acting by stimulation and thus increasing the circulation and secretion of urine.

Dr. Walter I. Pennock referred to the difference in strength of the various drugs put up by the different houses and urged the necessity for uniformity in this direction. He believed as good results were secured by fractional doses of calomel as by a single large dose. He stated that he had never seen a case of the cumulative action of digitalis, and believed the best results would be produced by use of the fluid extract, and after getting up to a sufficient dose by dropping back again to about half that amount, and again gradually increasing.

Dr. William L. Pepper stated that he had treated thirteen cases of diphtheria in one house with biniodid of mercury and that all recovered.

Dr. I. Newton Snively stated that he believed the value of any drug depended on the amount which was absorbed. In the administration of calomel, he recommended 1/10 of a grain every hour, combined with bicarbonate of soda and thoroughly triturated, and believed that the best results were secured with fractional doses.

Dr. Howard S. Anders believed arsenic to be of value in cases of tuberculosis when fever was absent, and urged the necessity of carefully prepared preparation of digitalis of uniform strength.

Dr. William Egbert Robertson stated that the effect of the fluid extract of digitalis on the stomach is less retained than is that of the ordinary preparations employed. He thought the infusion less reliable. He had previously stated that mercury may produce a nephritis. Now Kauffman and other German pathologists have called attention to the nephritic condition following the drug.

Therapeutics.

[Our readers are invited to send favorite prescriptions or outlines of treatment, such as have been tried and found useful, for publication in these columns. The writer's name must be attached, but it will be published or omitted as he may prefer. It is the aim of this department to aid the general practitioner by giving practical prescriptions and, in brief, methods of treatment for the diseases seen especially in every-day practice. Proper inquiries concerning general formulae and outlines of treatment are answered in these columns without allusion to inquirer.]

Urotropin in Scarlatina.

According to J. Widowitz, in *Interstate Med. Jour.*, the administration of urotropin prevents the occurrence of nephritis after scarlet fever. Proceeding on the hypothesis that scarlatinæ nephritis is due to a bacterial lesion of the kidney, the author prescribes urotropin at the beginning of the attack for a few days, and then again during the third week, in doses varying from grain 1 (.06) to grains 7½ (.50) three times a day, according to the age of the child. This treatment was carried out in 102 cases, and nephritis did not occur in any of them.

Cystitis.

The following combinations are recommended by *Merck's Archives* in the treatment of cystitis:

℞.	Potassii citratis	ʒv	20
	Potass. bicarb.	ʒv	20
	Ext. hyoscyami flu.		
	Spts. menth. pip., āā	ʒiss	6
	Syr. limonis	℥ii	60
	Infusi lini (5 per cent.)	Oi	500

M. Sig.: One tablespoonful in a glass of water every hour until improvement is shown, then every two or three hours, according to the symptoms; or:

℞.	Olei santali	gtt. v	30
	Olei terebinthinæ	gtt. ii	12
	Olei cinnamomi	gtt. ss	03
	Formini	gr. iiss	15

M. Ft. cap. No. i. Sig.: One such capsule every three to six hours; or:

℞.	Formini	ʒiiss	10
	Potass. citratis	ʒv	20
	Potass. bromidi	ʒiiss	10
	Tinct. hyoscyami	℥i	30
	Ext. tritici flu.	℥iss	45
	Glycerini	℥ss	15
	Syr. rubi idali q. s. ad.	℥viii	240

M. Sig.: A dessertspoonful in a glassful of water three times a day.

[Formin is hexamethylene-tetramine, and is identical with urotropin.]

Sea Voyages.

The advantages of the ocean climate, according to S. Solis-Cohen, in *Amer. Med.*, are its equability of temperature depending on the radiation and absorption of heat by the mass of water, the abundance of light, the freedom from dust and microbes and other impurities of the air, and the favorable atmospheric humidity. The prolonged rest and complete change of surroundings are important features in the curative effect of sea voyages.

The disadvantages are the monotony, the cost, the poor ventilation of the cabins, the danger of poor food and the possibility of seasickness. A sailing vessel, according to the author, is preferable to a steamship. After such depressing affections as influenza, short sea voyages are of value in giving mental and physical rest. In cases of neurasthenia longer voyages of one or two months are useful, also sometimes in asthma, in scrofulous conditions and frequently in incipient tuberculosis, prolonged voyages, in which port is not touched, are recommended only where there is high resistive power or in cases of drug habitués. Patients with severe cardiac disease should not take ocean trips at all. In cases of advanced tuberculosis, chronic gastro-intestinal disorders, cholelithiasis, ocean trips of more than one week's duration should not be taken. Neuralgic and gouty patients are frequently worse on the ocean than at home.

SEASICKNESS.

In the treatment of seasickness the author recommends as a preventive that all work be abolished for twenty-four hours before embarking, so that the system may not be exhausted, and as hearty a meal as possible be eaten before going on board. A calomel purge followed by a saline should be taken one week before sailing, and repeated two days before sailing. Saline laxatives or enemas should be used daily for the first few days on board ship. Light, easily digested food should be taken at frequent intervals. Strychnin, atropin or preferably picrotoxin should be given in small and frequent doses for a few days before sailing, and continued until the "sea legs" are gained.

In his opinion suprarenalin in doses of grain 1/24 (.0025) to grain 1/12 (.005) dropped on the tongue, is of value in some cases. After seasickness has set in, small amounts of light foods, such as soups, junket, beef juice and peptone should be taken at short intervals. Effervescent drinks, such as champagne and seltzer, are frequently of service, as well as counterirritation over the epigastrium. He recommends, in some cases, the Winternitz combination compress, which consists of a cool compress enclosing a warm epigastric coil as of value in this form of vomiting. In addition to the laxative treatment, the bromids, chloral and other hypnotics are valuable. The author prefers the bromids and occasionally morphin. The vasomotor stimulants, such as cocain, strychnin and atropin, may also be of service.

Agalactia.

The following combination in *Med. Record*, is recommended in the treatment of agalactia:

R.	Strych. sulph.			
	Pilocarpinæ hydrochlor., āā	gr. i		06
	Sacch. lactis	ʒiiss	10	

M. Ft. cap. No. 60. Sig.: One every four hours.

Epilepsy.

The following combination is recommended by W. Alessi in the treatment of epilepsy:

R.	Sodii arsenatis	gr. 1/60		001
	Zinci phosphidi	gr. 1/12		005
	Calcii phosphatis	gr. iss		09
	Sodii benzoatis			
	Pancreatin, āā	gr. iii		20

M. Ft. cap. No. i. Sig.: One such capsule after each meal.

The arsenic and zinc are nerve tonics. The calcium phosphate reduces cerebral excitability. The pancreatin and sodium benzoate aid digestion and overcome intestinal fermentation.

Chronic Bronchitis.

In the treatment of the dry catarrhal form of chronic bronchitis, T. A. Claytor, in *Wash. Med. Annals*, recommends the following combination to control the cough:

R.	Pulv. ipecac. et opii	gr. iii	20	
	Pulv. capsici	gr. ss		03

M. Ft. cap. No. i. Sig.: One capsule every three hours.

For the relief of dyspnea, difficult cough and tenacious expectoration a combination similar to the following is recommended:

R.	Potass. iodidi			
	Potass. bicarb., āā	ʒiss	6	
	Ammon. chloridi	gr. xlv	3	
	Ext. glycyrrhizæ flu. q. s. ad	℥ii	60	

M. Sig.: One teaspoonful four times a day in water.

For the morning cough, when the patient complains of much difficulty in raising the phlegm which has accumulated, the following is recommended by the author:

R.	Sodii bicarb.	gr. xv	1	
	Sodii chloridi	gr. v		30
	Spts. chloroformi	gtt. x		65
	Aquæ anisati q. s. ad	℥ss	15	

M. Sig.: To be taken at one dose in warm water, on waking.

Tar is also recommended as a very efficient remedy, taken in the form of a pill, each grains two (.12), every two or three hours, or as the syrupus picis liq., two teaspoonfuls in water every three or four hours, or combined as follows:

R.	Syr. picis liq.	℥ii	60	
	Syr. pruni virg.	℥i	30	

M. Sig.: A dessertspoonful to a tablespoonful every three or four hours.

The foregoing, in the opinion of the author, is the ideal combination as a cough mixture in chronic bronchitis.

In the treatment of bronchorrhea creosote, oil of eucalyptus and terebene are the best preparations. The author prefers eucalyptus given as follows:

R.	Olei eucalyptus			
	Olei amygdalæ dulcis, āā	gtt. v		30

M. Sig.: Drop the entire amount into a capsule and take one such capsule every three hours, followed by a full glass of water.

Terebene may be taken in doses of ten minims each (.65) dropped on a lump of sugar or placed in a capsule.

In the dry catarrh Yeo recommends the following:

R.	Sodii bicarb.	ʒi	4	
	Sodii chloridi			
	Ammon. carb., āā	ʒss	2	
	Spts. chloroformi	ʒii	8	
	Aquæ q. s. ad	℥vi	180	

M. Ft. mistura. Sig.: Two tablespoonfuls with the same amount of hot water every four to six hours.

Along with this combination the author recommends the following:

R.	Antimonii tartarati	gr. 1/6		01
	Morph. acetatis	gr. 1/8		008
	Ext. hyoscyami	gr. ii		12

M. Ft. pil. No. i. Sig.: One such pill at bedtime; or:

R.	Pulv. ipecac.	gr. 1/8		008
	Codeinæ	gr. ss		03
	Ext. hyoscyami	gr. ii		12

M. Ft. pil. No. i. Sig.: To be taken at bedtime to allay the irritative, hyperesthetic condition of the bronchial surface.

In cases of bronchorrhea copaiba is recommended, combined with tar, in capsule form or according to the following formula:

R.	Copaibæ	ʒii	8	
	Mucil. acaciæ	ʒvi	24	
	Spts. chloroformi	ʒss	2	
	Aq. camphoræ q. s. ad	℥vi	180	

M. Ft. mistura. Sig.: Two tablespoonfuls three times a day.

Turpentine is a more agreeable preparation, and is very efficacious prescribed in capsules or given in the form of an emulsion as follows:

R.	Olei terebinthinæ	ʒi	4	
	Mucil. acaciæ	℥ii	60	
	Misturæ amygdalæ q. s. ad	℥vi	180	

M. Ft. emulsio. Sig.: One or two tablespoonfuls three or four times a day; or it may be given in the form of an inhalation, placing a teaspoonful of turpentine in a pint of hot water, and directing the patient to inhale the vapor.

Analgesic for Rheumatism.

The following combination is recommended as a local analgesic in the treatment of rheumatism:

R.	Menthol	ʒi	4	
	Betulol			
	Ceræ albæ			
	Lanolini, āā	℥i	30	

M. Ft. unguentum. Sig.: Apply with friction if possible. If the joint is too tender apply on lint.

[Betulol is methyl-oleo-salicylate compound.]

Medicolegal.

Confining Smallpox Patient in Unsanitary Pest-House.—The Court of Appeals of Kentucky says that it was alleged in the case of Having vs. the City of Covington by the party suing for damages that he was taken against his will when sick with smallpox and confined in a pest-house, which was unfit for any one, well or sick, to remain in; that the roof was broken, and the sides of the house open, so that the rain, snow, and ice could come in and on him; that he was placed in a filthy, unhealthy, and damp room, and compelled to remain there; that the bed, bedding, and covering and place where he was kept were unfit for any one to occupy; that, because of the cold, sleet and snow, and other elements, and the filthy condition of the rooms and bedclothing, he suffered both mental and physical pain and anguish, and that the ravages of the disease with which he was afflicted were increased by reason thereof. The court says that it was agreed that the officials who committed the wrongs complained of were personally liable for the injuries received, and the only question to be determined was, could the city be made liable therefor? One of the general principles underlying the administration of government of municipal corporations is that, in the preservation of the peace, public health, maintenance of good order, and the enforcement of the laws for the safety of the public, they possess governmental functions, and represent the state, and under that principle a city is not liable for the malfeasance, misfeasance, or nonfeasance of its officers. With reference to the matters alleged, the city, by its officials, was acting for the preservation of the public health, and in a governmental capacity, and as an arm of the state government. All the authorities support this conclusion, and there is no deviation from these principles, except where the city is made liable by an express statute. There being no statute making the city liable in this case, a judgment, on demurrer, in its favor is affirmed.

Question of Skill for the Jury—Quoting from Books.—The Supreme Court of California says that, in the malpractice case of Bailey vs. Kreutzmann, the physician sued examined Mrs. Bailey and pronounced her ailment to be a cystic tumor of the ovary, and ordered her to a hospital, where he proceeded to operate on her for the said ailment. After an abdominal incision and careful inspection of the parts, he discovered that the ovaries were in reasonably good condition, and, finding the uterus enlarged, concluded that the patient was probably pregnant, and sewed up the incision. The wound healed, and subsequent events proved that she was not pregnant at the time of the attempted operation. Thereafter the physicians and surgeons called as witnesses reached the conclusion, from the history of the case and all the circumstances surrounding it, that the patient's trouble was neither pregnancy nor an ovarian tumor, but was in fact a fibroid tumor of the uterus, or something else nearly allied thereto. The patient and her husband brought this suit to recover $40,000 for the alleged unskillful and negligent acts of the physician. The verdict and judgment were in the physican's favor; but the Supreme Court has reversed an order denying a motion for a new trial on account of certain errors. At the request of the physician, the jury was instructed: "The defendant in this action is not charged by the plaintiffs with any lack of general skill or competency as a physician and surgeon. This amounts to an admission, and you are bound to hold, accordingly, that the defendant was possessed of that ordinary medical and surgical knowledge and skill which the law requires him to possess; there being no degree other than that of ordinary knowledge and skill recognized by law as a standard or applicable as a measure of knowledge and skill in such cases." The Supreme Court holds that this instruction was erroneous, and should not have been given. The plaintiff charged the defendant with negligence and want of skill in treating her, and should have been left to argue to the jury that the facts presented showed that the defendant was lacking in the skill usually possessed by a physician and surgeon. Again, the court says that it has been held, without conflict and in an extended line of cases in California, that medical works are hearsay and inadmissible in evidence, except, perhaps, on cross-examination, when a specific work may be referred to, it seems, to discredit a witness who has based his testimony on it; and it must be taken as the settled rule in the state that medical books are not admissible as evidence, except in the instance specified. If the books themselves are hearsay and inadmissible, certainly any recital of their contents or the substance thereof is none the less hearsay, and should be excluded for that reason.

Physical Examination of Eyes Requiring Use of Drugs.—The case of A., T. and S. F. Ry. Co. vs. Palmore, as it is entitled in the Supreme Court of Kansas, was brought by the latter party to recover damages for injuries to his eyes alleged to have been sustained while in the company's employ handling creosote treated ties. Before the trial began the company made a request for an expert physical examination of his eyes in the usual and ordinary manner. No objection was made to the time or form or propriety of the request. On behalf of the party it was stated that he consented that the experts might examine his eyes by inspecting them, but that he protested against the court permitting experts or anybody else to put drugs into his eyes for the purpose of dilating them. No reason whatever for this protest was vouchsafed. On the part of the company it was suggested that in no instance could a proper examination of the eye be made without dilating certain of its parts, and the request was made that this feature of the examination be left to the experts themselves. Thereupon, the trial court made the following order: "The plaintiff, by his consent, may subject himself to have his eyes examined, but the court will not permit any drugs to be used in the examination without the consent of the plaintiff." The Supreme Court holds that this was error. It says that it is a matter of common knowledge that, through the restriction of the energies of trained students and investigators to that single field, ophthalmology has been brought to a state of comparative perfection. Here, as in all other quests for truth conducted under the guidance of the scientific method, the first requirement is a full and accurate observation of the facts. The modern scientific expert will be content with nothing short of a view of the facts where they can be seen. Therefore he has invented the ophthalmoscope for the exploration of the interior of the eye, the rhinoscope for the exploration of the nasal cavities, and other appropriate instruments for the exploration of other hollow organs of the body, and he will not attempt to bridge the chasm between ignorance and knowledge in any case where they may be of assistance until he has availed himself of their use. The question, therefore, arises whether or not the law, as a means of justice, will tolerate any other than the surest method of ascertaining truth; whether or not, with all the marvels of scientific achievement placed at its command, the rule of thumb shall be sufficient for its purposes; and whether or not in this case the timely application of the company for the production of the best evidence should be granted before a transfer from its treasury to the party suing of $5,000 was ordered. Again, it says that drugs are of infinite shades of potency from the rankest poisonousness to absolute innocuousness. They may produce death, or an effect so fleeting and temporary that only the most skilled observer can be conscious of it; and reactions from them range from the utterly intolerable to the positively pleasurable. The question, therefore, was not if drugs should be used, but if an examination should be made without serious inconvenience and without deleterious effect. Any enforced examination is vexatious and embarrassing, and very frequently must involve some slight degree of that discomfort which is denominated pain; but an examination may nevertheless be made with due consideration of both the sensibilities of the party suing and the demands of justice. From all this, including an examination of a number of authorities more or less in point, the Supreme Court says that the conclusion must follow that the District Court should have required an expert examination of the plaintiff's eyes to be made, subject to the limitation that it should not produce serious discomfort or any deleterious consequence; and, in order to insure the execution of its order according to the strict letter of its terms, the court should have approved, if it did not actually select, the experts appointed to make the examination. Or, as it sums it up, in an action for damages for a negligent injury to the eyes, claimed to be permanent, a timely request for an expert physical examination of the injured organs in the usual and ordinary manner should be granted, although involving the use of drugs for dilating the pupils of the eyes, subject, however, to the limitation that the examination does not produce serious discomfort or any deleterious consequence.

Current Medical Literature.

AMERICAN.

Titles marked with an asterisk (*) are abstracted below.

American Medicine, Philadelphia.

March 12.

1 *The Mod[illegible] of Iron. Reynold Webb Wilcox.
2 *Alopecia [illegible] H. Dillingham.
3 The Etio[illegible] of Arteriosclerosis. H. B. Anderson.
4 *The Diagnosis of Metapneumonia Empyema in Infancy and Early Childhood. John Lovett Morse.
5 *Pure Olive Oil and Its Use in the [illegible] of Chronic Dysentery and Allied Conditions. H[illegible]
6 *The Mind as a Causative and Therapeutic [illegible] Bittle C. Keister.
7 A Comparative Study of Animal Blood. Edward T. Williams.
8 The Scientific Basis of Mind Cure. Selwyn A. Russell.

1. **Iron in Therapeutics.**—Wilcox discusses the pharmacology of iron, and remarks that the term "organic" iron should be considered obsolete and the term "masked" substituted. The hemoglobin can not be taken into account as it is destroyed so soon as it enters the stomach, therefore blood products for administration are useless. Undoubtedly many so-called organic iron compounds are practically only combinations of iron salts with albuminoids. This is shown by the addition of a few drops of silver nitrate solution which causes albuminoid precipitation. In true masked iron the addition of hema-

toxylin solution causes no color reaction. In determining the *form of masked or organic* iron for oral administration he says that one should be selected which 1, should be of definite chemic composition; 2, does not precipitate with a silver nitrate solution; 3, does not give the blue-black color with MacCallum's test; 4, is not decomposed by the hydrochloric acid of the gastric juice; and 5, it must show definite results in an increase in the number of red blood-corpuscles and in the amount of contained hemoglobin. These requirements are evidently the most rigorous which can be devised, and in meeting them modern iron therapy will be placed on a secure foundation.

2. **Alopecia Areata.**—This disease is considered by Dillingham as parasitic in nearly all cases, and should be treated as such, as is the case in France. The best results can usually be obtained from chrysarobin which can be painted on after dissolving in liquid gutta-percha or used in vaselin, which latter plan gives the best results. The strength of the ointment varies from 20 gr. to 2 drams to the ounce, and depends on the age of the patient and the susceptibility of the skin. Care should be taken in keeping it out of the eyes and not using it on too large a surface at a time. He also advises the use of stimulating lotions to cause an increased blood supply to the part.

4. **Metapneumonic Empyema.**—Morse describes the onset and symptoms of empyema occurring after pneumonia, especially in early age, and gives his conclusions as follows:

> Metapneumonic empyema usually develops during the last days of the pneumonia or during the first days after the crisis, but in rare instances may develop in the early days of the pneumonia, or later during the convalescence. Persistence of the fever and other symptoms after the time of the expected crisis or their recurrence after the crisis should always suggest the possibility of an empyema. There is nothing characteristic about the symptoms of empyema, which are those common to all severe pulmonary affections. Rapid emaciation and progressive pallor are the most constant symptoms in neglected cases, while chills and sweating are unusual. Enlargement of the affected side as a whole is more common than flattening or bulging of the intercostal spaces. Flatness in Traube's space is less constant in left-sided effusions in infants and children than in adults. The most constant and characteristic sign of effusion is a marked sense of resistance on the affected side. Displacement of the heart almost always occurs, and next to the sense of resistance is the most important sign. These two signs justify the diagnosis of effusion even if all the *other physical signs are inconsistent.* Dullness or flatness is almost always present, but may be replaced by tympany. The respiratory sound is almost invariably bronchial or bronchovesicular in character, and, as a rule, diminished in intensity. Loud, bronchial respiration is, however, not uncommon, even with large effusions, and counts very little, if at all, against the presence of fluid. The vocal resonance is very variable, both in character and in intensity and is of little value in diagnosis. It is very difficult to determine the vocal fremitus satisfactorily. Its absence is, however, an important diagnostic sign. Râles may be transmitted through large amounts of fluid. Their presence does not rule out an effusion.

5. **Olive Oil in Dysentery.**—A special treatment is here proposed by Rutherford for cases of chronic dysentery, sprue, and chronic enterocolitis of tropical origin. A number of patients were selected for the treatment and the results were such that he considers the oil decidedly curative. It increases the flow of watery bile which favors the absorption of fats in the intestines and stimulates intestinal peristalsis, acts as an intestinal antiseptic and destroys certain pathogenic bacteria. The results of the administration are positive evidence of the increased quantity of bile; decrease in the number of daily bowel movements and improvement in their character; gradual cessation of signs of fermentation and putrefaction along the gastro-intestinal tract and resulting subsidence of pain and tenderness, with a general improvement, increase of appetite, improved digestion, improvement of the nervous system and rapid gain in weight and strength. There was an apparent positive cure in an average time of two months and upward with a few recurrences to date. The usual way of giving it was to begin in the first period of treatment, with 30 c.c. of the oil three times per day for the first three days, then increased to 60 c.c. three times daily, and on the sixth day, is again increased to this quantity four times in the twenty-four hours. During the first half of this period the patient is given only a milk diet; in the latter half there is added to it one to three ounces of scraped beef or its equivalent in egg albumin daily. By this time the patient becomes tolerant of the oil. He may lose in weight temporarily. In the second period of the treatment the oil may be given in greater quantity, not less than 90 c.c. three times daily, without discomfort, and kept up for perhaps two months or more in chronic cases until the patient's recovery has been fully established and the normal weight restored. In the third, or getting-up period, the patient is gradually restored to a full diet and the oil decreased. In most cases in the beginning it is necessary to give with it about equal quantities of hot milk until the patient gains a tolerance. Later on, a relish for the oil is obtained. It is given about an hour before meals, so as to get the maximum effect on the empty stomach and intestines. The oil must be the pure olive oil. In a special report to the commanding officer by Dr. G. Parker Dillon the results are given mainly as stated, but he does not feel sure that relapses will not occur, but the oil treatment is guardedly approved.

6.—This article under a different title appeared elsewhere. See The Journal, xli, title 37, p. 1559.

Boston Medical and Surgical Journal.

February 25.

9 *The General Management of Diabetes. Frederick C. Shattuck.
10 *Medical Treatment of Diabetes. W. H. Thomson.
11 *A Comparison Between the Medical Uses of the X-rays and the Rays from the Salts of Radium. Francis H. Williams.
12 *The Prognosis of Idiopathic Pleurisy. George G. Sears.

9 and 10.—See abstract in The Journal of February 6, p. 391.

11. **X-Rays and Radium.**—Williams finds that the rays from radium salts, unlike the x-rays, are not useful in diagnosis either by radiographs or fluoroscopic examination. The beta rays from radium salts will heal some cases of new growth that are not cured by the x-rays, and act more promptly, though over a more limited surface than the x-rays. Radium salts at an activity of 8,000 or considerably more, are not strong enough to be efficient. Pure radium salts which have a radioactivity of about 1,500,000 are not too strong for the work to be done. Radium rays, unlike the x-rays, are uniform, and great care should be exercised to avoid burns.

12. **Idiopathic Pleurisy.**—Sears has investigated a number of cases of idiopathic pleurisy for the purpose of estimating their relation with tuberculosis. The tables show that a considerable proportion at least becomes tuberculous. He thinks that the results do not support Cabot's hopeful view, but rather raise the suspicion that an attack of pleurisy may be a manifestation of a suspected taint causing death at a later period. How great the damage is he does not say, but the conclusions which he considers justified are to the effect: 1. That about 10 per cent. of his 439 cases plus Cabot's 300 are known to have developed tuberculosis. 2. That over 55 per cent. of all cases which were followed to their death had died from some form of tuberculosis. 3. That tuberculosis, when it occurred, developed within five years in over 50 per cent. and within ten years in over 70 per cent. 4. That this danger is much increased by a tubercular family history or a personal history of some form of tuberculosis previous to the attack.

Medical Record, New York.

March 12.

13 *Secondary Laparotomy. H. C. Coe.
14 Dry Superheated Air in Therapeutics. Clarence E. Skinner.
15 *Strangulated Hernia. John F. Erdmann.
16 *Some Points Regarding the Early Diagnosis and Some New Features in the Treatment of Pulmonary Tuberculosis. W. Freudenthal.
17 The Relation of Physical Defects to Mental Development. George Stockton.
18 Mastoiditis. E. H. Pomeroy.
19 Remarks on the Preparation of Vaccine Virus. John F. Anderson.

13. **Secondary Laparotomy.**—By secondary laparotomy, of course, is understood an operation undertaken months or years after a previous section for the relief of the symptoms that were either not relieved or have developed subsequently. Among these symptoms are adhesions which are not always well accounted for, and it would be interesting to know how far gauze drainage is responsible. It is difficult to explain how in many cases where large raw surfaces are left and also infected stumps, adhesions either do not form or give rise to very little trouble. Fistulæ are annoying complications and

while they generally heal, now and then a secondary operation is required. Secondary pus foci may be evidences of imperfect work. Hernia, Coe does not here consider. The development of neoplasms of the uterine adnexa and the broad ligaments after previous operation are too common to require comment. His personal experience has led him to remove the opposite ovary, even though macroscopically healthy, when its fellow is the seat of papilloma, since he finds that the remaining organ is usually affected later. He generally tries to preserve the functions when he can, but finds that sometimes the most promising cases are the most disappointing in this respect. Conservative operations on the ovaries are often followed by troublesome complications. He asks whether in doubtful cases it would not be wiser to leave an ovary alone if we do not feel justified in removing it. His experience at Bellevue has made him dubious as to the complete elimination of fresh gonorrheal or septic infection by preliminary curettement, or catheterization and irrigation of infected tubes. The frequency with which a diseased appendix is found after laparotomy is a strong argument in favor of its general removal. The principal indication for secondary operation, however, is pain, and hemorrhage may often require it. He remarks in regard to the diagnosis, and says that the prognosis should be a guarded one as to complete relief, though in operating in certain obvious conditions—neoplasms, persistent hemorrhage, etc.—we may confidently expect positive results. When it comes to the question of separating dense adhesions or dissecting out exudates, we should not forget that they may recur in spite of everything. There is generally relief, however, and it is sometimes permanent. The cure of fistula is often difficult and prolonged, and even then recovery may be doubtful. While he has confined his remarks on secondary operations to abdominal section, he admits that for the simple removal of the uterus and the remains of the adnexa he would prefer the vaginal route, but he can not admit that adhesions above the pelvic brim can be thus treated. A surgeon can hardly be too radical at his second seance and he usually has the full cooperation of his patient on this occasion. The man who discovers a sure method of preventing the re-formation of adhesions will deserve the lasting gratitude of the world.

15. **Strangulated Hernia.**—Erdmann analyzes 58 cases occurring in a practice of about eight years: 31 being inguinal hernias, all males, of whom 26 recovered. The details of the five deaths are given. Strangulation in every one of these cases was at the external abdominal ring. There were 19 cases of femoral hernia; 4 in males and 15 in females. There were 3 cases of excision of the intestine, 2 recovering; 6 cases of umbilical hernia, all females, and 1 death. He would use general anesthesia in these cases if the patient has not been vomiting, but in case of vomiting, local or spinal anesthesia should be employed. He prefers, however, local anesthesia in all instances as being less likely to cause vomiting and inspiration pneumonia and lessening shock. There is no reason for not allowing the hernial gut to remain in the wound for a number of hours if there is a question as to its viability. If time shows that it is non-viable, a secondary operation with excision and radical cure can be proceeded with. He also returns the omentum when not gangrenous unless it is matted together by adhesions or hypertrophied. In excising the omentum he never uses the locked or chain ligature because it puckers up the mass. He prefers to take up small sections and make individual ligations, keeping the omentum in its spreading relationship to the intestine. The youngest case was a male thirteen days old; no anesthesia; recovery. The oldest was a female aged 86; femoral hernia; local anesthesia; recovery. The majority of the cases seem to occur during the warm weather when general relaxation is greatest. He does not believe in taxis. The after-treatment is simple. A little rise of temperature, ½ to 1½ degrees, is nothing to be feared, but the dressings should be taken down occasionally so that the wound can receive proper attention. A movement of the bowels is sought for in all non-excision cases the second day, and a light diet given until the temperature is normal. In excision cases enemas are used for the first week and rectal alimentation from four to six days; food by the mouth after the sixth, and a light diet after the tenth. The complications of inspiration pneumonias and solitary follicle ulceration are briefly mentioned. In uncomplicated cases he allows the patient the head and back rest after the fourth day and to be out of bed on the thirteenth or fourteenth in inguinal and femoral hernia. In abdominal hernia they are out of bed in three weeks with a snug binder.

16. **Tuberculosis.**—Freudenthal calls attention to laryngeal and pharyngeal disorders in the diagnosis of early tuberculosis, pointing out the characteristic appearances, anemia of the soft palate with a congestive condition of the uvula and fauces, which is an early symptom, and congestion of the larynx with pallor of the epiglottis. The use of the old Koch tuberculin is considered by him comparatively safe. He has had only a limited experience, however, in 31 cases, and can not record any unpleasant results. The individual dose ranges from .5 to 2 mg., increased if there is no reaction to 3 or 5 mg. and even more. He thinks it should be tried on a larger scale. He speaks well of electric light as a therapeutic agent in tuberculosis, and also of carbonic acid gas, though its use seems to have been forgotten. In summing up his experience, which will be published more fully later, he says that the addition of CO_2 to treatment with the so-called blue rays of light has given encouraging results and promises more for the future.

New York Medical Journal.

March 12.

20 *A Simple Method of Intestinal Anastomosis. H. M. Hepperlen
21 Tertiary Syphilis of the Nose and Pharynx. (Continued.) W. Scott Renner.
22 *Senile Pneumonia; Value of Persistence in Treatment; Correct Method of Using Oxygen. Solomon Solis-Cohen.
23 *A Study of the Affection, "Writer's Cramp." *Gustaf Norstrom.*
24 *Rectocolonic Lavage, with Description of New and Improved Tubes. *Dwight Henderson Murray.*
25 *The New Biologic Test for Human Blood, with a Report of Its Employment in a Recent Murder Case. (Concluded.) A. Robin.

20. **Intestinal Anastomosis.**—Hepperlen uses a gelatin capsule for the bobbin or cylinder over which to suture the intestine. It serves as a firm support and is readily absorbed after the operation. He has them made of various sizes, having them slightly formalinized so that they will retain their shape at least fifteen minutes anywhere within the alimentary canal, and then completely dissolve. He describes his technic as follows:

> When the capsule is placed in position I insert a few interrupted sutures through all the coats of the bowel to hold the parts in coaptation. I then complete the work by using a suture that I have never yet seen recommended. I use a fine intestinal silk, twenty-four inches long, doubled, with a needle on each end, having the knot where the ends of the silk are tied in the center. I start my first suture under the mesentery attachment, inserting a needle with each hand at the same time through the two outside coats of the bowel, an eighth of an inch from the cut margins; pick up a loop about one-twelfth of an inch in length, according to the method of Lambord, draw the parts together and tie them at each stitch. Continuing thus until I have completely encircled the bowel, I close the mesentery opening with the same suture, being careful to pass my needles under the small vessels in the peritoneal coat so as not to constrict the blood supply more than necessary.

The figures appended to the text illustrate the method. The advantages he claims are first, its simplicity; second, it can be introduced, practically without handling the parts, in about a quarter to an eighth of the time required for any other stitch, and third, when the bowels are sewed together by this method they are held more firmly than by any other stitch he knows of. In fact, in using experimentally much pressure where this method has been employed, he has had the intestine give way at other parts than at the point of suture. By the aid of the capsule and suture recommended, end-to-end anastomosis can be performed in five to ten minutes.

22. **Senile Pneumonia.**—In this clinical lecture Solis-Cohen calls attention to the treatment of pneumonia in elderly persons, and the various drugs to be used. Alcohol is given in the form of champagne, which he thinks is better as causing less stomach irritation, and it is more readily accepted when alcoholic stimulation is required. A saline infusion under the skin was given, which is a useful practice when the injection is done slowly and does not exceed eight to twelve ounces at a time. Hot flaxseed poultices were kept about the thorax

during the day and at night were replaced by a lamb's wool jacket for the better part of a week. In using poultices it is important that they should be well made and retain their heat for at least four hours so as not to disturb the patient too frequently. It is not wise to awake the patient either for food, medicine or any applications. At one time in the treatment oxygen was given by inhalation. It is a useful remedy but is usually put off too long. He describes his method of giving it, using the purified gas under compression in a cylinder to which a wash bottle and inhaling terminal are attached. He gives the oxygen very quietly for a considerable period of time; in severe cases from one hour to six or twelve, or even more, removing it only when needed to give the patient rest or sleep or food. After two or three hours of continuous administration of oxygen there will usually be sufficient improvement to warrant its intermittence for a couple of hours. Half an hour's use of oxygen in every two or three hours may suffice. The administration should be entrusted to skilled hands and the dosage regulated according to circumstances. He remarks as regards temperature that a high temperature is a favorable symptom; a low temperature, as a rule, is bad. Hence this indicates the danger of antipyrin medication. Many patients, he thinks, suffer from heart failure owing to the use of the coal-tar antipyretics either for the pneumonia or because previously employed.

23. **"Writer's Cramp."**—Norstrom describes "writer's cramp," holding that it is not necessarily a nervous affection, and pointing out that in many cases at least it is myositic and with a tendency to hardened nodules in the muscles, often multiple. The massage applications to be used are effleurage and proper friction. He thinks that in many cases in the future a careful examination will reveal the presence of peripheral changes of the type described. Not all the cases perhaps are due to chronic myositis or all curable by massage. There are some cases where no deposits are found, but these are exceptional. He mentions several of this type. Massage can not be effective when nothing tangible can be detected in the muscles, but in the majority, the condition, he holds, is due to myositis with localized lesions.

24. **Rectocolonic Lavage.**—Murray describes the rectal tubes which he has devised and which he thinks meet the indications better than any others. The tubes are solid and rounded at the head with a double perforation allowing inlet and outlet; are very soft and pliable; the distal outlet and inlet made on a curve. Being made of soft rubber they can not break and can be used with water of a higher temperature than can be done with metal or hard rubber. The paper is illustrated, which makes the descriptions very intelligible.

25. **Biologic Test for the Blood.**—In this continuation of his paper Robin describes the tests as made in a special medicolegal case, and also gives his conclusions as follows:

1. Human blood can be distinguished from that of other animals, except, perhaps, monkeys, by means of antiserum.
2. Antiserum may be obtained by immunizing rabbits against human blood.
3. For immunization, it is most convenient to employ the blood obtained from human placenta, which can be secured aseptically without much difficulty.
4. From six to eight injections, 8-10 c.c. each, should be made at intervals of three to five days, and the serum secured at least a week after the last injection.
5. At the end of the immunization period it is well to test the potency of the antiserum by securing a small quantity of blood from the ear vein or any of the deep-seated vessels.
6. To obtain the serum from rabbits for testing purposes, it is not necessary to sacrifice the animal as sufficient serum can be secured from any of the large veins or arteries, the femoral being the most accessible.
7. Care should be taken to have all solutions perfectly clear and the blood sufficiently dilute. The antiserum should be used pure.
8. Control tests on blood from different domestic animals should invariably be made.
9. With all the precautions observed, a distinct clouding within thirty minutes and a precipitate within two hours is certain evidence that the blood is human.
10. In medicolegal cases the tests should be repeated at least twice, so as to exclude any possible error.

Medical News, New York.

March 12.

26 *A Clinical Study of 62 Cases of Intestinal Infection by the Bacillus Dysenteriæ (Shiga) in Infants. Linneus E. La Fetra and John Howland.
27 *Factor in the Etiology of Distorted Nasal Septa. Charles E. Quimby.
28 *The Abortive Treatment of Gonorrhea in the Male. Frederic Bierhoff.
29 Differential Diagnosis and Treatment of Chancroid and Chancre. C. G. Clark.
30 *The Ocular Signs of Syphilis. Wendell Reber.
31 *Diagnosis and Treatment of Syphilis of the Central Nervous System. Luther C. Peter.
32 The Recognition and Treatment of Some of the Pharyngeal Lesions of Syphilis. Lewis S. Somers.
33 *New Stain for Diphtheria Bacilli. Eduardo Andrade.

26. **The Shiga Bacillus in Infants.**—The material used by La Fetra and Howland was obtained during the months of July, August and September. Sixty-four cases were examined consecutively and 62 gave a positive reaction. From an analysis of the cases they give the following facts as specially worthy of notice:

1. The unexpectedly great prevalence of the dysentery organism in cases of diarrhea in infants, at least during the summer months. Thus, out of 64 consecutive cases examined in the Vanderbilt clinic, 62 were positive. As has been mentioned before, this is the first large series of cases examined seriatim that has been made and the result is certainly striking. It is all the more so when we consider that these were cases in dispensary practice, where with the severe the very mildest cases may be seen. Duval and Bassett examined 25 successive cases and found the organism in 19, but it should be stated that the patients were observed in a sanatorium at a distance from Baltimore where, of course, only the more severe cases were sent from the dispensaries, while ours were all ambulant patients and their stools were examined whenever there was the slightest sign of any digestive disturbance. Our cases were also seen very early whereas, in hospitals, the cases are rarely seen until their initial symptoms have passed.
2. All types of diarrheal disease, as characterized by their clinical symptoms, are to be found among these cases. Some were examples of severe and some of mild ileocolitis; others could only be classed as the mildest form of intestinal indigestion. The course of the disease, while usually short, was prolonged in eight cases.
3. As compared with cases of "summer diarrhea" of other years those in this series were in general much milder; and possibly this was due to two factors: the cool summer and the increasing knowledge among the tenement population of the care of infants and their food.
4. The striking number of breast-fed infants, 14 in 62 cases, more than 20 per cent. of all.

In the series of Duval and Bassett previously mentioned, there were 4 breast-fed cases and a few others in addition have been reported. The great number in our series is accounted for by the fact that all stools from patients with diarrhea were examined. As will be remembered of our 14 breast-fed children, not one was severely or even moderately ill, and only one had blood in the stools. Such cases would therefore not be sent to hospitals, and so usually their stools would not be available for examination.

5. The serum treatment was not given in a sufficient number of cases to warrant any conclusions. While of apparent benefit in some cases, there were others in which no effect whatever was noticed. It may be that larger dosage is necessary; but, if so, the serum must be more concentrated than at present.

27. **Septal Distortion.**—Quimby's theory of septal distortion is that it is due to defective development of the jaws and teeth. Children with irregular teeth, high palatine, or narrow alveolar arch and distorted nasal septum should be treated by the dentist and rhinologist together. Of course this is not to be done till after ossification or after puberty; before this time the teeth are seldom sufficiently developed to make a satisfactory final regulation. If they are of a triangular variety, the earlier work should be especially directed to the correction of the nasal defect, and the regulation of the teeth left for some years later. A case is reported which he thinks illustrates the truth of this theory. The bending of the septum, he concludes, was due to imperfect articulation and undue vertical pressure from the developing maxillary bones, the pressure being relieved by separation of the maxillæ. The cartilage was pressed into the groove thus formed and the condition relieved.

28. **Gonorrhea.**—After a review of the literature Bierhoff gives an account of his experience with the modification of Lewin and Frank's method for the abortive treatment of gonorrhea with protargol injections. He has employed the method in 30 cases. In 50 per cent. the result was positive and in 15 negative. In the positive cases the gonorrhea had distinctly disappeared in 12 on the second day, in one on the third, in 2 on the fourth. Of the negative cases the gonorrhea had definitely disappeared in 2 after the fifth day (and thus might perhaps be included among the positive), in 3 cases after the tenth day, in one after the sixteenth day, in 2 after the twenty-first day and in one each after the twenty-second, thirty-fifth,

thirty-sixth and fortieth day respectively. One case is still under treatment. That a posterior urethritis developed in only 2 of the series, he thinks is the best argument for the utility of the abortive treatment.

30. **Ocular Signs of Syphilis.**—Reber reviews the different ocular lesions that may occur. A syphilitic primary sore is likely to be at the margin or just within the margin of the lids. It may be due to infection carried by the finger, as frequently occurs, or from the use of the tongue for the removal of a foreign body which is a common practice among the lower classes. Secondary syphilis may infect the cornea, uveal tract, *optic nerve or retina, but has a marked predilection* for the uveal tract. Every iritis is open to the suspicion of being syphilitic until other causes are demonstrated. Choroiditis is perhaps as frequently syphilitic in origin as iritis. It almost always leaves a scar in the choroid that may be studied years afterwards. Iritis, on the other hand, may leave no traces if successfully treated. The optic nerve is as likely to be tertiary as secondary in its involvement. Most frequently involved in the tertiary processes, however, are the intra- and extra-ocular muscles. Finally, tertiary lesions may appear in the lacrimal sac as extensions of similar lesions in the nose and accessory sinuses, and also in the lids as ulcers or broken-down gummas. Gumma of the iris is somewhat rare, but sometimes offers a classic picture of this phase of syphilis. Hereditary syphilis commonly affects the cornea in childhood and young adult life, though the ocular muscles are also sometimes hereditarily involved. Interstitial keratitis is the form usually assumed. The flat nose, bluish-gray white corneas, mouths with scarred corners, depressed cheek bones and imperfect teeth make a clinical picture which should be easily recognized. Deafness is frequently an accompaniment of the ocular lesions. Since syphilis generally attacks the eye savagely, the patient calls for treatment early and the results are, therefore, usually very gratifying. The form of mercury will be determined by the practice of the ophthalmologist, and Reber is convinced that one thing is certain, namely, that the pilocarpin or sweat cure tremendously assists the efficiency of whatever antisyphilitic remedies are used.

31. **Nervous Syphilis.**—Peter describes the lesions of the central nervous system, in immediate syphilitic infection, summing up briefly that the brain symptoms are multiple and variable in character, and not systematically grouped. Among them are paralysis of the cranial nerves, Argyll-Robertson pupils, irregularity of pupillary margin, inequality of pupils, apoplectiform and epileptiform attacks, recurrent palsies usually without loss of consciousness, numbness in extremities, increased reflexes, headache, vertigo, somnolence and altered mental states. These are signs which point to syphilis of the brain and its coverings. Syphilis of the cord is also distinct in its symptomatology. The essential point is the widespread involvement of the entire cord. There is a distinct group of symptoms, first described by Erb, characterized by a slow oncoming spastic paraplegia, atrophic at times, muscle contractures with bladder involvement, slight disturbance of sensation and a tendency to improve and then relapse. The essential point is the involvement of the entire cord, more extensive in some regions than others, giving rise to complete loss of function in certain parts and preservation in others.

33. **New Stain for the Diphtheria Bacillus.**—Andrade finds the following a good way of staining which he thinks has advantages. It decolorizes all other bacilli with the exception of the yeast cells and some large non-identified cocci, the bacilli of diphtheria appearing as a pale blue rod with deep reddish-brown granules in the almost colorless field. He uses Borrel's blue, 1 c.c., in 50 c.c. of a watery solution of vesuvin, 1/100,000. The method of staining is as follows: Prepare the films in the usual way. 1, Borrel's blue, five minutes; 2, wash in distilled water; 3, Lugol's iodin solution, one minute; 4, wash in distilled water; 5, decolorize in absolute alcohol until no more blue is given off; 6, wash in distilled water, dry and mount. The smears should be thin and easily spread. The best results are obtained with cultures from eighteen to twenty-two hours old, grown at 37 C.

St. Louis Medical Review.

March 12.

34 The Development and Significance of the Vitreous. A. Koelliker.
35 My Autobiography and Reminiscences. (Continued.) S. Pollak.

Cincinnati Lancet-Clinic.

March 12.

36 The Pollution of Our Water Supplies. W C. Chapman.
37 Syphilis Hemorrhagica Neonatorum. M. K. Isham.

Northwestern Lancet, Minneapolis.

March 1.

38 *Recent Investigation of Certain Diseases Associated with Bacteriemia: Typhoid Fever, Pneumonia, Scarlet Fever, etc. Ludvig Hektoen.
39 Resection of the Elbow—Osteotomy for an Old Pott's Fracture with Deformity—Cyst of the Thyrolingual Duct—Ovarian Cyst and Pus Tube. J. H. Dunn.

38. **Bacteriemia.**—Hektoen describes the condition of bacteriemia in three diseases, especially in typhoid where the presence of bacilli in the blood is one of the most valuable diagnostic symptoms. The fact that typhoid bacilli are quickly killed by the human blood and that typhoid bacilli increase in this disease in this medium is explained by him as possibly due to the typhoid bacillus neutralizing, by the production of its destruction, the complement in the blood serum. He also suggests from the evidence that there is really a difference in the biology of the organisms of paratyphoid and typhoid fever. Pneumococcemia in pneumonia is also discussed. It is a constant and characteristic feature. He emphasizes the facts that pneumococci are demonstrable in the blood in certain cases before the primary symptoms can be detected, and that the subcutaneous or intraperitoneal injection of pneumococci into rabbits may give rise to foci in the lungs resembling lesions of lobar pneumonia, and that injection of pneumococci into the bronchi causes a rapid absorption of cocci into the blood. The destruction of pneumococci, he thinks, is largely due to leucocytes, since the blood serum itself is without destructive effect and high leucocytosis is indicative of a favorable prognosis. The leucocytes seem to exert a defensive rôle in pneumonia, and it seems that alcohol and ether have a paralyzing effect on them, as shown in rabbits. The last disease mentioned is scarlet fever, in which the streptococci are in the majority of cases demonstrated in the blood. Whether they are the cause of scarlet fever or not, it may be said that there is a very general invasion of the body in fatal cases. In practically all the cases of scarlet fever there is a great increase in the number of streptococci in the blood. Against the theory of their being the essential germs may be cited the absence of any general invasion of the body by the streptocccoci in the so-called foudroyant cases of scarlet fever. Furthermore, it is impossible to differentiate the streptococci which occur in scarlet fever from other familiar streptococci, and while one attack of scarlet fever gives rise to a lasting immunity, there is no evidence that an attack of scarlet fever produces any immunity to streptococcal infection. Moreover, in smallpox, diphtheria and measles there is also frequent streptococcal invasion in the blood, yet these diseases can not be said to be due to streptococci. He thinks it reasonable to conclude that while in the cases of the majority of children dying from scarlet fever the death is due to streptococcal infection, there is still no strong evidence of a direct etiologic relationship between scarlet fever and streptococci, even though the latter are of such paramount importance in the disease. There is a great need of an efficient antistreptococcic serum. He also makes the suggestion that there is possibly too little care exercised against the diffusion of streptococci in scarlet fever cases in the hospitals, severe cases being placed alongside the mild ones and the chance of further streptococcic invasion in the latter being thus favored.

Buffalo Medical Journal.

March.

40 Cystitis. J. Henry Dowd.
41 *Modern Management of Inflammation of the Middle-ear and Contiguous Structures. F. Park Lewis.

41. **Middle-Ear Diseases.**—Lewis describes the methods of treatment of middle-ear disease. He advises that paracentesis should be free, the use of local treatment with cocain and

adrenalin in the early stages before suppuration has commenced, drainage in chronic cases, and the usefulness of limiting the food supply in some early cases to abort acute mastoiditis. The last is strongly suggested by his success in one case in connection with other measures, such as cleansing of the ear and filling the meatus with protargol solution. The conclusions are that every otitis demands careful individual attention and close observation. In a large number of the cases judicious local treatment will render operation unnecessary, but when it is required it should be done early enough to prevent involvements which may prove fatal, and it should be done thoroughly. The main vital structures of the body are involved, and abnormalities of formation are common. It should never be undertaken except by those who have had experience either on the cadaver or have familiarized themselves thoroughly with the bony anatomy and the technic of the operation.

Memphis Medical Monthly.

March.

42 Some Remarks on the Diagnosis and Treatment of Gall-bladder Disease. Edward D. Mitchell.
43 Some Unique and Interesting Cases in a Series of 100 Cataract Extractions. E. C. Ellett.
44 The Etiology and Treatment of Colds. J. W. Price.
45 *Exophthalmic Goiter, Résumé of Cases and Their Treatment. Henry Posert.
46 Decortication of the Kidneys for the Cure of Chronic Bright's Disease. M. Goltman.
47 *Intestinal Parasites. N. F. Raines.
48 Bougie in Abdominal Cavity for Five Days. E. E. Haynes.

45. **Exophthalmic Goiter.**—Posert opposes surgical treatment as the statistics do not show any more favorable results than with medical treatment. As we do not know which theory of the disease is correct, it is hard to decide between excision and operation on the cervical sympathetic, and the danger of anesthesia is to be considered. Under cocain the operation is bloody and the possibility of fatal hemorrhage is to be considered. A scar is also left and a skillful operator must also be at command, therefore, surgical treatment should not be resorted to until other means have failed. The method he prefers is the use of faradic electricity. It is a nerve stimulant, produces a better blood supply, promotes metabolism and prevents the rapid proliferation of connective tissue which strangles the cells and inhibits the natural function. Nine cases were under his care, of whom five recovered, one died from intercurrent disease and three others have been lost sight of.

47. **Intestinal Parasites.**—Raines reports a case in an infant of twenty months who, in two weeks, passed 1,992 round worms, ranging from one to nine inches in length. The medication was santonin and calomel, followed by castor oil, and a salt enema. The mother, a mulatto, stated that the child had sneezed out a worm while at table one day, the first one seen.

Providence Medical Journal.

March.

49 *Oysters and Sewage in Narragansett Bay. C. A. Fuller.
50 Report of a Case of Cesarean Section in a Difficult Labor Resulting from Ventrofixation of the Uterus. Charles W. Higgins.
51 Nephrolithiasis or Stone in the Kidney. John W. Keefe.
52 Hypertrophic Cirrhosis of the Liver. Hanot's Cirrhosis. George S. Mathews.
53 The Diagnosis of Gonorrhea. Plea for Systematic Examination for the Gonococcus in All Cases of Urethral Inflammation. Harold G. Palmer.

49. **Oysters and Sewage.**—The state of Rhode Island has leased 3,000 acres of water for oyster cultivation in the Providence River and Narragansett Bay. Fuller has investigated the water there as to the bacteria and finds that the sewage contamination extends for six and a half miles down from Providence on the river. It does not exist in Narragansett Bay, but as the river has more oyster beds than all the remaining Rhode Island rivers, the importance of this sewage pollution is evident. Narragansett Bay proper is not polluted by the sewage of either Providence or Fall River.

Journal of Cutaneous Diseases, New York.

March.

54 *Some Additional Cases of Blastomycetic Dermatitis. T. Caspar Gilchrist.
55 Case of Lymphatic Leukemia with Purpura. Frederick C. Shattuck.
56 *Removal of Warts, Moles and Other Facial Blemishes. Geo. T. Jackson.

54. **Blastomycetic Dermatitis.**—Gilchrist reports several new cases, quoting one from McCarrison, published first in the *Indian Medical Gazette*, which is of interest as giving a new locality for the disorder. As far as the treatment is concerned, the administration of potassium iodid internally as suggested by Bevan, as well as exposure to the *x*-rays until a mild burn is produced, will, he thinks, cure the condition except in severe systemic cases. He remarks on its wide distribution, cases having been recorded in Germany, France, Italy, England, South America, India, as well as over 40 cases in this country. Another point of importance is the confirmation of Hektoen's observation that the blood of a patient suffering from this disease will agglutinate the blastomycetes.

56. **Warts and Moles.**—Jackson describes the methods of getting rid of facial deformities and warts. The ordinary wart is not common on the face. In elderly persons the senile wart may appear and may turn into an epithelioma. The best treatment for the seed warts when practicable is to scrape them off with a curette, a few at a time, touching the surfaces left with pure carbolic acid. Where this is not practicable the best method is to apply to the tumor a saturated solution of salicylic acid with collodion. By repeated applications it will come off. It must be remembered that these things disappear of themselves in time, and nothing should be done that will leave a scar. Filiform warts should be snipped off with a clean pair of scissors, and the base touched with pure carbolic acid. Senile warts may be removed with saturated salicylic acid solution, but if they show any tendency to enlarge they should be treated as if they were an epithelioma, thoroughly curetted and the base cauterized with nitrate of silver or treated with arsenical paste or chlorid of zinc. The tendency to become malignant must be kept in mind, and any trifling treatment is worse than nothing. Nevi appear in various forms, as the common vascular nevi or telangiectasis, port-wine marks and spider cancers, or they may take the form of vascular tumors. Pigmented nevi are sometimes spoken of as permanent freckles, and often long fine or coarse hairs will be found growing in them, forming the hairy nevus. Fibrous nevus is a fibroma, and varies from a small French pea to a small marble in size. To remove vascular nevi of all kinds nothing is so good as liquid air. One or two freezing applications with this agent carries them off, though it may cause a great deal of pain. Electrolysis is another reliable agent. In simple telangiectases the vessels may be destroyed by passing a fine steel brooch into their course and using a current of about 2 milliamperes for half a minute. In so-called spider cancer the best plan is to pass a fine cambric needle into the middle of the prominent point and turn on a current of two milliamperes for a minute to destroy them. A red-hot needle or a drop of fuming nitric acid will do the same, but may leave a scar. In children they may disappear, and it is well to wait for a while. Painting the parts with collodion will perhaps do some good. Where pressure can be made, a bandage may be used, but the danger of producing sloughing must be considered. Port-wine marks are very satisfactorily treated with galvanism, but the treatment is a little tedious, and fuming nitric acid, the acid nitrate of mercury or ethylate of sodium may be employed, applied with a sharpened stick wound with absorbent cotton, in a series of dots. Cavernous angioma may be possibly destroyed by electrolysis, or if that can not be used, by touching them with fuming nitric acid or puncturing with a red-hot awl, allowing it to cool on the spot. Pigmentary nevi may be destroyed by electrolysis of fuming nitric acid, which will give more satisfactory results in the larger ones. Pure carbolic acid will remove some of those of a light-brown color; glacial acetic acid will remove these nevi. Hairy nevi are satisfactorily removed only by electrolysis. It should be used as in removing superfluous hairs, and if these occur they should be destroyed before the underlying nevus is attacked. Fibrous nevi can, of course, be cut off, but electrolysis will be more painless and equally effective. Freckles resemble pigmentary moles, but are not permanent. Jackson's favorite prescription for preventing freckles is calamin 1.3, zinc oxid 4, glycerin 8, aqua calcis 24, aquæ rosæ ad 120. The face should be kept covered with this lotion when out of doors. There is little use

of removing freckles, for they return. They may be blistered out or faded out with peroxid of hydrogen. Usually brides apply for this treatment. Xanthoma, another facial blemish, is a yellow patch which comes on the eyelids. Electrolysis is the best agent for its removal. In conclusion, Jackson speaks of the removal of hairs and claims that the electrolytic treatment, if done by an experienced hand, is perfectly successful. Radiotherapy has been proposed, but is still on trial.

Indiana Medical Journal, Indianapolis.

March.

57 *Is the Usual Treatment of Post-partum Hemorrhage Correct? W. Gaston McFadden.
58 Insomnia. Eliot Gorton.
59 Berlin as a Post-graduate Center. C. R. Schaeffer.

57. **Post-Partum Hemorrhage.**—McFadden opposes the teaching that it is necessary to remove the clot in cases of post-partum hemorrhage. He says let us consider the physical conditions. We have a large coagulum formed, assuming the general contour of the surrounding walls, perhaps slightly pressing against them. You introduce the syringe with a long flexible catheter attached, and press it up to near the fundus, keeping the point of the catheter in contact with the uterine wall, just as you do in introducing the blade of your forceps. The syringe should be filled with Monsel's solution, and as you press it out it will trickle down the concavity of the uterine walls and will be kept in close contact with them by the retained coagula, the removal of which would disturb the open sinuses and increase the flow of blood. He would encourage the formation of coagulation rather than remove the clot, using merely very gentle pressure on the fundus until the uterus shows no further disposition to dilate and the mouths of the bleeding sinuses are closed. Then after the inertia of the organ passes away it will resume its normal physiologic function of contraction and expel the clot by its own restored muscle force.

American Medical Compend, Toledo.

March.

60 The Best Method in the Treatment of Tuberculosis. W. A. Dickey.
61 Epileptic Automatism, with Report of a Case. Charles J. Aldrich.
62 *Echinacea—Some of Its Uses. W. F. Shumaker.
63 Measles. W. H. Baldwin.
64 Mesogastrium—from Personal Autopsic Abdominal Inspection in 400 Males, 150 Females and 60 Children. Byron Robinson.

62. **Echinacea.**—Shumaker gives the results of administration of this drug, the modus operandi of which he can not explain, the preparation being the fluid extract of the root—dose ¼ to ½ fluid dram—or specific echinacea—dose 5 to 30 drops. He finds that the glandular system seems to be stimulated, the stomach improved in its functions, the appetite increased, while the bowels operate better and the nutrition is improved. He thinks the drug stimulates the retrograde metabolism better than any single remedy known. He has used it in infants a few days old, and at every age without any bad results. He thinks it specially valuable in typhoid fever, in which it can be given without interruption from the start with any kind of temperature. In smallpox it relieves the itching and shortens the febrile period, and also modifies pustulation. In anthrax it prevents the formation of new colonies or boils and causes subsidence to a certain extent of those already existing. The dose should be large and repeated every hour until twenty-four or thirty-six doses have been taken. If any of the abscesses have an opening, the remedy should be applied locally in the strength of 1 part to 3 parts of boiled water. As a remedy for burns it has no equal, and less cicatricial tissue follows its use than with any other remedy. He uses echinacea 1 part, boiled water 2 to 6 parts, locally applied, keeping this up until the healing process separates the saturated gauze from contact with the part. In senile gangrene his confidence in its usefulness has been built up on the results of its use in less than a dozen cases. It stops sloughing and encourages the line of demarcation. In snake bite he has had no experience with it, but where rattlesnake bites are frequent, many cases are reported by those whose integrity he can not doubt, testifying to its value.

Journal of the Kansas Medical Society, Topeka.

March.

65 Syphilis. (Concluded.) Mayer Shoyer.
66 Treatment of the Chancrous Stage of Syphilis. Hugh Wilkinson.
67 *The Loco Disease. L. E. Sayre.
68 An Unusual Effect from Irritation of the Ulnar Nerve. N. J. Saunders.
68½ Case of Acute Bilateral Facial Palsy with Complications. S. Grover Burnett.
69 A Unique Case of Diphtheria in Which *Antitoxin* Was Used on the Eighth Day with Excellent Effect. W. V. Tucker.
70 Nitrous Oxid and Ether Sequence. L. S. Chamberlain.

67. **Loco Diseases.**—Sayre is the dean of the school of pharmacy in the University of Kansas, and has chemically analyzed the *Astragalus molissimus*, the weed to which is generally attributed the so-called loco disease in cattle and horses. He finds no constituent in it which accounts for the condition, but does think that much may be due to fine irregular hairs which grow on the surface of the leaves. He has extracted a new crystalline substance, but this has shown as yet no toxic activity, and another from a fresh plant, which seemed to be neutral, but has an acid reaction toward some of the bases. This, however, has as yet been obtained in too small quantities to be tested physiologically.

Medicine, Detroit.

March.

71 *Pathophysiology of Epilepsy and Its Therapeutic Relations. James G. Kiernan.
72 *The Actual and Comparative Resistance of Acid-fast Bacilli. Randle C. Rosenberger.
73 Case of Stricture of the Esophagus, Complicated by Subdiaphragmatic Abscess, Loculated (Intralobar) Empyema, and Purulent Peritonitis. Thomas L. Coley.
74 *Pseudoparasitism Caused by the Common Clothes Moth. Joseph McFarland.
75 Remarks on Syphilis of the Nervous System. Hugh T. Patrick.
76 *Practical Clinical Notes on the Administration and Action of Iodonucleoid, or Organic Iodin. G. Frank Lydston.
77 *The Serum Treatment of Hay Fever. Lewis S. Somers.
78 The Anterior Fontanelle. J. R. Clemens.
79 *Graves' Disease and Its Relation to the Psychoses. Arthur W. Rogers.
80 *The Prevention of Heart Disease. Robert H. Babcock.

71. **Epilepsy.**—In this first communication Kiernan discusses the pathology of epilepsy, the portions of the brain involved and the causes of convulsions. The great elements in epilepsy are the cerebral irritability, the excitability and the autotoxic state that exists. Elimination is checked, toxic material accumulates and the convulsive centers are excited. Epileptic instability is essentially the lack of balance of the degenerate or hereditary defective, plus, not rarely, a higher ethical and intellectual background.

72. **Acid-Fast Bacilli.**—Acid-fast bacilli, both the pathogenic and other kinds, and their literature are reviewed by Rosenberger, who reports experiments made with three-weeks' old cultures of the organisms. He states his conclusions that in doubtful cases in which acid-fast bacilli are encountered, a diagnosis of tubercle bacilli can be positively made by after-treatment of the stained spread with sweet spirits of niter or glacial acetic acid, which completely decolorize other acid-fast organisms than the tubercle bacillus, such as the grass and butter smegma bacilli. Where only a few organisms are found inoculation experiments should be made.

74.—This article appeared elsewhere. See The Journal of March 19.

76. **Iodonucleoids.**—Lydston concludes that this is a non-irritating and thoroughly assimilable preparation of iodin, less likely to produce iodism from a given quantity of the contained iodin than any of the iodin salts he has used.

77. **Hay Fever.**—First referring to Dunbar's serum, Somers gives his own experience with a serum made from animals inoculated with the pollen of golden rod, and employed both as a serum and as a powder. He finds that it produces a prompt and positive amelioration of the symptoms of fall hay fever in the majority of cases, and in a smaller number this favorable result is soon accompanied by the complete disappearance of the affection. Where there is little or no action after its use, pollen evidently does not predominate as an etiologic factor, but whenever results are obtained they are favorable. While he can not speak from personal experience on the effect of this serum on hay fever occurring at other

times of the year than the fall or when given in advance of the attack, it is certainly decidedly palliative, irrespective of the severity of the attack. Its effects on future attacks remain as yet unknown. Larger experience may modify some of these statements.

79. **Graves' Disease.**—Rogers claims from observation of 13 cases in the Milwaukee Sanatorium, that while there is no characteristic psychosis, his experience coincides with that of the great majority, that in three-fourths of the cases the maniacal types are found. The physical symptoms of the disease are not modified by the mental condition. He also holds that Graves' disease is indicative of a neurotic temperament and the mental and physical symptoms are both evidence of the same defect. The insanity is a further development of a neurotic and hysterical condition observed in even the mildest cases. Graves' disease as a rule does not make the prognosis of the insanity any less favorable.

80.—See abstract in The Journal, xli, p. 1040.

Physician and Surgeon, Detroit and Ann Arbor.

January.

81 *Mitosis in Circulating Blood. George Dock.
82 Case of Infection with Bacillus Pyocyaneus with the Primary Focus in Decubitus and with Special Reference to the Hemolytic Action of the Organism. Frances N. Boynton.
83 Pelvic Inflammation from the Standpoint of the General Practitioner. Reuben Peterson.

81. **Mitosis in the Circulating Blood.**—After first giving a résumé of the literature, Dock reports his own observations. The material included 20 cases of myelogenic leukemia, 3 of chronic, small-celled leukemia, 2 of acute leukemia, 2 of fatal megaloblastic anemia, 40 cases of chronic pernicious anemia and several hundred cases of secondary anemias, chlorosis and leucocytosis. Mitotic figures were found in both cases of acute anemia, in 2 of chronic pernicious anemia, in 1 of severe anemia with splenomegaly in an infant, not rachitic, but possibly syphilitic, in 8 cases of myelogenous leukemia and in 1 case of acute leukemia. Most of his examinations were made on preparations fixed in ether and alcohol and stained with hematoxylin and eosin. In the mitoses of 7 cases of leukemia, in severe anemia and in 3 cases of leukemia only the red cells were involved. He has never encountered a lymphocyte undergoing mitosis in the blood nor has he ever seen it in polymorphonuclear leucocytes. The occurrence of mitotic figures in normoblasts has rarely been noticed by previous writers, but in leukemia many of the most unmistakable figures were in cells, not much above the average size. Some years ago he expressed the opinion that mitoses are more frequently found in white than in red cells in leukemia, but a larger experience has made him reverse this opinion. The number of mitotic figures varies much in different cases, and in the same case at different times, and the phases of mitosis offer some interesting facts. The preparatory phase in which the chromatin shows a coarse meshwork, is strongly suggested by many nucleated red cells, especially certain megaloblasts. The earliest appearance that can be positively identified is the spirem with rather coarse skein, which has been rare in his preparations. The metaphase is rather more frequent, but the commonest figure by far in red cells and leucocytes is the diaster without signs of division of the cell body. In trying to discover the significance of the presence of mitotic processes in circulating blood, he has examined the associated conditions. The mitotic red cells in leukemia are not encountered merely in cases of the greatest anemia, nor are they always met with in these cases. The facts on the whole seem to go far toward the explanation of the phenomenon. The presence of both the nucleated red cells and myelocytes indicates a defect in the blood-forming organs. The presence of mitoses in cells can easily be explained by assuming that cell formation is active and that some of the cells happen to migrate in some stage of division. In the case of nucleated red cells one is tempted to see a teleologic process and suppose that mitoses indicate active regeneration of the blood, but this can not easily be proven. At present Dock does not think we are justified in claiming that mitosis in the circulating blood has any definite diagnostic or prognostic value. The atypical mitosis is rather more serious in its indications than the normal process, but probably only because it is found with extremely active cell development and because this is often a part of unfavorable conditions.

Medical Standard, Chicago.

March.

84 *Autointoxication and Its Treatment. Heinrich Stern.
85 A Neurologic Clinic (Spasmodic Torticollis, etc.). Sanger Brown.
86 The Diagnosis and Treatment of Iritis. Thomas Faith.
87 *Surgical Complications in Typhoid Fever. Frank H. Edwards.
88 Two Consecutive and Interesting Cases of Nasal Reflex with Almost Identical Symptoms. E. E. Clark.
89 *Some Methods of Treatment of Cardiac Failure. Daniel N. Eisendrath.
90 The Present Status of the Profession in the Treatment of the Opium Habit. A. R. Williamson.

84. **Auto-intoxication.**—This article, which is a preliminary paper of a series, gives the history of the theory of auto-intoxication and considers the subject in general. The author gives the system of his classification, which will be followed in the subsequent papers: "1. Intestinal auto-intoxication: absorption autotoxicoses. 2. Catabolic auto-intoxication: retention autotoxicoses; autolysis; acidosis. Histolytic autotoxicoses; nucleolysis. Histoenzymic autotoxicoses. Combined retention—histolytic autotoxicoses."

87. **Typhoid Fever.**—Edwards describes the method of uterine anastomosis used in a case of resection from typhoid perforation. A bobbin formed of a coiled spiral with a thread through each end forms the support, which is extracted from the bowel at the close of the suture, by being unscrewed through the last stitch as a shirt stud is removed from a shirt. The substance he prefers is celluloid, though he sees no reason why hard rubber or leather might not also be used.

89. **Cardiac Failure.**—Eisendrath had experience with a number of cases at the time of the late Iroquois Theater fire in which he used the methods of resuscitation described in cases of cardiac failure in some of which asphyxia was apparently complete. One of the methods mentioned is the use of adrenalin; another that of Koenig, consisting in making on the precordial region a number of sharp pounding or pressure movements. He has tried this method in nine cases in cardiac syncope from chloroform. The technic consists in making 120 movements per minute over the precordial region. A modification which might be tried in extreme cases is that of resecting the fourth and fifth costal cartilages and taking hold of the heart, using direct massage. He also refers to an English surgeon's method of direct massage through the diaphragm. The second method was the one proposed by Laborde, making rhythmic traction on the tongue 16 to 18 times per minute, bringing it out as far as you can each time. The third method was the administration of adrenalin solution as suggested by Crile. A boy was brought into the hospital with a crushing injury of both legs and in a severe condition of shock. He was given 5 minims of a 1-1,000 solution of adrenalin hypodermically and then 1 minim of the 1-1,000 solution every hour for five hours. Transfusion was also employed. He improved and made a rapid recovery.

Virginia Medical Semi-Monthly, Richmond.

February 26.

91 The [illegible] of Reflex Symptoms in Gynecology. Charles [illegible]
92 [illegible] Smith.
93 [illegible] of the Medical Society of Virginia. [illegible] Brady.
94 Treatment of Hip-joint Disease. Wm. P. Mathews.
95 The Early and Late Symptoms of Hip-joint Disease. E. J. Moseley, Jr.
96 Visit to Professor Kehr's Clinic in Halberstadt, Germany. I. S. Stone.
96½ Neuritis. E. M. Magruder.

Northwest Medicine, Seattle, Wash.

February.

97 Address. King County Medical Society. J. P. Sweeney.
98 Perineal Prostatectomy. Robert Telford.
99 Relation Between Diseases of the Nose and Diseases of the Eyes. Hamilton Stillson.
100 Should It Be a Fixed Rule Always to Use Antiseptics on Our Hands? E. M. Brown.

Medical Mirror, St. Louis.

December.

101 *The Erotopath in Society. Charles H. Hughes.
102 Bubo. Norman Barnesby.

101.—This article has appeared elsewhere. See The Journal, xl, title 66, p. 738.

Vermont Medical Monthly, Burlington.

January 25.

103 Appendical Colic. A. Lapthorn Smith.
104 The Treatment of Effusion of the Chest. William W. Seymour.
105 Electricity in the Treatment of Diseases of the Stomach. G. G. Marshall.
106 Chloroform and Consciousness. Charles Caverno.

Cleveland Medical Journal.

March.

107 Traumatism of Circumflex Nerve in Shoulder-joint Injuries. Frank E. Bunts.
108 Report of Case of Pulmonary Tuberculosis and Transposition (?) of the Heart. M. J. Lichty.
109 Anchylosis and Caries Following Gonorrheal Infection. C. A. Hamann.
110 Case of Sympathetic Inflammation of Eye. William E. Bruner.
111 Plastic Operations to Elongate Cicatricial Contractions Across Joints. Stewart L. McCurdy.

Woman's Medical Journal, Toledo.

January.

112 Filaria. (To be continued.) Mary M. S. Johnstone.
113 Burns: Prognosis and Treatment. Laura H. Branson.

Canada Lancet, Toronto.

March.

114 Ultramicroscopic Organisms. J. J. Mackenzie.
115 Visceral Manifestations Occurring in the Erythema Group of Skin Diseases. Robert D. Rudolf.
116 The Treatment of Various Forms of Cutaneous Disease by the X-rays and Light. Allan W. Jamieson.
117 Alcohol in Medicine and Surgery. John Ferguson.
118 Infectious Diseases Among School Children. Charles Sheard.
119 Systematized Compulsory Drill. C. A. Hodgetts.

Canadian Journal of Medicine and Surgery, Toronto.

March.

120 How to Prevent, Limit and Suppress [illegible] Infectious Diseases Among School Children. [illegible]
121 Relative Prevalence of Contagious D[illegible] *of* School Age. P. H. Bryce.
122 The Necessity of Physical Education in Our Schools and the Utility of Military Instructors. *Charles A. Hodgetts.*
123 Marmorek's Serum for the Prevention and Cure of Tuberculosis. Andrew Eadie.
124 Ruptured Tubal Pregnancy. *Lester Keller.*

Medical Review of Reviews, New York.

February 25.

125 Notes on Dermatology. Isador Dyer.

Carolina Medical Journal, Charlotte.

February.

126 The Microscope in General Practice. Thomas R. Little.
127 *Intestinal Obstruction from Meckel's Diverticulum. Stuart McGuire.
128 Gonorrhea: Its Relation to Marriage. J. A. Childs.
129 Some Mistakes of a Country Doctor.

127.—This article has appeared elsewhere. See The Journal of March 5, title 122, p, 682.

Medical Times, New York.

March.

130 The Restorative Influence of Ozone on the Blood. G. Lenox Curtis.
131 Puerperal Eclampsia. Geo. W. Griffiths.
132 Phases in the Treatment of Children. George R. Wilson.
133 Recent Advances in the Study of Heart Conditions. M. E. Fitch.
134 Cancer of the Larynx and of the Breast. M. Shellenberg.
135 Functional Diseases of the Liver. Louis F. Bishop.

Stapler's Rarefier—A Correction.—In the abstract of Dr. Stapler's article in The Journal, March 12, ¶31, p. 679, it was stated that 18 cases out of the 24 were cured or fairly in a way to effect a cure. It should have been stated that 10 cases were cured, 8 of which are still under observation and producible for evidence.

FOREIGN.

Titles marked with an asterisk (*) are abstracted below. Clinical lectures, single case reports and trials of new drugs and artificial foods are omitted unless of exceptional general interest.

British Medical Journal, London.

March 5.

1 *The Inception of the Rhythm of the Heart in the Ventricle as the Cause of Continuous Irregularity of the Heart. James Mackenzie.
2 *Some Hemoglobin Investigations in Cases of Chronic Heart Disease. Theodor Schott.
3 *Improvements in Dietetics of Diabetes. James Sawyer.
4 Recurrent Fever Associated with Spirilla in the Blood in a Patient from Gibralter. Patrick Manson.
5 *Veronal: A New Hypnotic. Alfred C. Jordan.
6 *Use of Oxygen Gas in Distending the Bladder for Cystoscopy. A. Galbraith Faulds.
7 *Aseptic Surgery in Theory and Practice. Charles B. Lockwood.

1. **Cardiac Rhythm.**—This paper seeks to explain a special form of cardiac irregularity where the heart is at no time regular and two beats of the same character do not follow each other. This has been known under the names of delirium cordis, mitral pulse, pulsatio irregularis perpetua, etc. Mackenzie's explanation of the condition is that it is due to the ventricles taking on the inception of the rhythm instead of it beginning with the large veins as they enter into the auricles, as is normally the case. Whenever there is a continuous irregularity as distinct from occasional or rhythmic irregularity, the ventricle is giving the rhythm. The cause is to be sought in the irritability of the heart muscles and not in a disorder of its nervous regulation. The exceptions to this are rare. Hering's experiments demonstrate that a rising ventricular pressure can produce premature contraction of the ventricle apart from its nervous connections. Mackenzie has had several opportunities of noticing the beginning of symptoms associated with attacks of continuous irregularity and is convinced that dilatation and ineffective action of the heart is secondary. When irregularity begins there is an uneasiness in the chest, shortness of breath and an increasing sense of weakness. Coincident with these are definite changes in the circulation, the radial pulse becomes larger and compressible, the veins of the neck are engorged, the face dull and dusky and the lips blue. The area of the heart's dullness extends beyond the right of the sternum and the superficial structures of the chest wall become tender to pressure, as he has noticed in dilatation of the heart. These symptoms are those met in advanced cases, and he suggests that it is the irregularity that is the cause of the inefficient heart's action for this reason and not dilatation that causes the irregularity. The treatment should be directed to the lessening of the irritability of the heart muscle and to protect it from being exposed to the causes that increase its activity. The best remedy he finds is prolonged rest in bed.

2. **Hemoglobin Investigation.**—Schott has used the Dare hemoglobinometer and reports cases showing the effect of the Schott treatment, not merely on the heart diseases, but on the general condition of the body as well, including increase of the hemoglobin percentage.

3. **Diabetes.**—The researches of Mossé published two years ago show that potatoes are often well borne in diabetic glycosuria and are capable of being substituted for wheat and bread in proportions enough to keep up the alimentary ratio. To the potash salts Mossé attributes the superiority of the potato diet. Sawyer's experience has confirmed these findings and he points out that to retain the potash salts in cooking potatoes should be steamed with the skins on. He also suggests the use of potato flour in bread, cake, etc., for diabetics, and gives the following prescription:

Bran and potato bread. Take half a pound of flour of steamed potatoes, quarter of a pound of bran, half an ounce of German yeast, half an ounce of butter, one egg. Twenty-four hours before making the dough cook the potatoes by steaming them *in their jackets, then peel and break up into flour with the fingers.* Mix all the ingredients together. and let the paste stand near the fire for an hour to rise. Bake in greased tins for an hour *and a* half.

He also lays *down a diet for diabetics as follows:*

May Eat.—Butcher's meat of all kinds, except liver. Pork, ham, bacon, poultry, game, potatoes steamed in their skins, fish, oysters, crabs, lobsters. Animal soups, not thickened except by potatoes. Mutton broth, beef-tea. *Bran and potat*[illegible] potato [illegible] and cakes, eggs, cream, butter, cheese, greens [illegible] cress, lettuce, mushrooms, nuts, jelly or [illegible]

May Not Eat.—Any bread or biscuits but those made of bran and potato. Sugar, asparagus, broccoli, cauliflower, carrots, parsnips, French beans, peas, turnips, arrowroot, macaroni, rice, sago, *tapioca, vermicelli, pastry excepting potato* cakes, puddings, fresh and preserved fruit.

May Drink.—Water, tea, coffee, soda-water, claret, *hock*, spirits and water unsweetened, bitter ale (very sparingly), milk (very sparingly).

May Not Drink.—Cocoa, chocolate, champagne, porter, stout, home made wines, liqueurs, cider, sweet wines, ale.

5. **Veronal.**—Jordan thinks veronal is a useful means of producing sleep in doses of 4 to 5 grains. Larger doses may be re-

quired in severe mental excitement, etc. He says that no remote after-effects of any kind have been observed, that immunity from the bad effects on the vital organs is the chief recommendation, and that there does not seem to be a probability of creating veronal habit.

6. **Oxygen in Cystoscopy.**—Faulds prefers the use of oxygen gas for dilating the bladder because he thinks it has a beneficial effect on the accompanying cystitis and a clarifying action on the urine. It should be used with great caution. The patient should be warm and comfortable and the gas should be pure. The gas must enter the bladder slowly and with great care. If cystitis exists it will be necessary to use a local anesthetic. Oxygen can be left in the bladder without disadvantage and often to the patient's benefit.

7. **Aseptic Surgery.**—Lockwood's third lecture treats of the accurate closure of wounds, drainage, dressings and the influence of environment in operation. He speaks highly of the use of transplanted skin flaps as doing away with the necessity of skin grafts, being better in some respects in its results. Drainage, he thinks, is unnecessary, excepting in infected wounds, though in certain operations, like those on the gall bladder and rectum, it is indispensible. The essential qualities of the dressing are sterility and dryness. He still uses the outer Listerian dressing, which has been largely abandoned in general practice. He finds it specially useful in the radical cure of hernia and in cases of laparotomy when vomiting is likely to occur. In hot weather it can be dispensed with after the first forty-eight hours. The lecture is largely taken up with the effects of different environments on the prognosis of surgical wounds and is illustrated with a number of cases.

The Lancet, London.

March 5.

8 *The Evolution and Action of Certain Muscular Structures of the Heart. Arthur Keith.
9 *The After-treatment of Head Injuries. R. Crisp English.
10 Anti malarial Operations at Mian Mir (Punjab). J. W. W. Stephens.
11 *Motor Symptoms of Mania and Melancholia; with a Theory of Their Origin and of the Origin of Delusions Arising in These Conditions. W. H. B. Stoddart.
12 Four Cases of Tetanus Treated by Injections of Antitoxin Into the Spinal Theca. Cuthbert S. Wallace and Percy W. G. Sargent.
13 *Anatomical Characters of the So-called Filaria Perstans and on the Modes of Infection Thereby. H. Charlton Bastian.
14 *Congenital Hypertrophic Stenosis of the Pylorus. Edmund Cautley.
15 *Red Light in the Treatment of Smallpox. J. T. C. Nash.
16 *On the Distribution of Bacillus Coli in Nature. J. W. H. Eyre.
17 *Case of Paroxysmal Labyrinthine Vertigo Associated with Special Ocular Symptoms and Alleviated by Seton. T. Wilson Parry.
18 *Contribution Towards the Etiology of Alopecia Areata. Arthur Whitfield.

8. **Muscular Structures of the Heart.**—Keith describes the support of the heart in the thorax, the effects of its changes during systole and diastole, and the manner in which different parts of the heart work.

9. **Head Injuries.**—English discusses late traumatic abscesses and traumatic epilepsy. He thinks the operative treatment of epilepsy is not curative, but may be palliative for several years; for this reason operation is not to be discarded. Suitable cases are those in which there is evidence of injury, or the epilepsy is jacksonian with localized convulsions, or the disease has not lasted for more than two years, and there is no neurotic family history. With general convulsions the chances are slight. There are cases in which the relief from fits has lasted for many years, but these are rare, for it is usual for them to return in two or three years. Traumatic insanity is also discussed at some length and the author offers the following conclusions:

> 1. While some degree of mental impairment is comparatively common after injuries to the head the changes are seldom sufficiently marked to be included under the heading of insanity. 2. Insanity may result from injury to any part of the head. 3. Traumatism leads to insanity in two ways: Direct insanity due to the actual injury to the brain or its membranes apart from hereditary or other predisposing causes, and indirect insanity—that is to say, any form of insanity occurring as the result of lowered resistance of the brain due to injury in patients with a predisposition to insanity, hereditary or otherwise. 4. Every variety of mental change may be produced by traumatism, although some forms are commoner than others. 5. It is at present undetermined whether injury to the prefrontal region is more likely to be followed by mental disturbances than injury to other parts of the brain. 6. Only a small proportion of the cases of traumatic insanity are open to relief by operation, for a localizing indication in an accessible region must be present. 7. The results so far have been encouraging, and although the operation must necessarily be exploratory, it is fully justified in suitable cases, especially in face of the otherwise hopeless condition of these patients.

11. **Motor Symptoms in Mania and Melancholia.**—Stoddart holds that in mania an irritating product is formed within the cortical neurons and the frequency of hallucination in mania supports this view. In melancholia, on the other hand, a paralyzing product is formed, and in agitated melancholia there is a combination of deleterious influences—a paralyzing product in the neurons and an irritating body in the plasma which bathes the nerve cell. In a few cases of mania there is, in addition to the irritating body within the nerve cell an irritating body in the plasma. Whether we are to infer a new formation of cytotoxins or increased formation or deficient elimination of substances normally occurring, there is no evidence to show, but he thinks it is well to bear in mind that there is in melancholia a general tendency of the cells in the organism to fail in the excretion of their normal metabolic products. He thinks the delusions of melancholia arise from a feeling of inactivity in the stimulating cortical neurons.

13. **Filaria Perstans.**—Bastian holds that we know very little about the internal anatomy of the *Filaria perstans* and are unable to properly refer it to its true taxonomic position. It is an error, he thinks, to say that nematoids pass through one or more metamorphoses, since so far as known they attain maturity by steady and progressive development. They stand in no need of being harbored by intermediate hosts, but have independent existence from their emergence from the egg, and plants and vegetables in use as well as water may be the real sources through which they attain entry into the human body, where they develop as facultative parasites.

14. **Congenital Hypertrophic Stenosis of the Pylorus.**—Cautley reports a case with certain features which seem to indicate to him that the affection may exist apart from the typical symptoms, that an apparently mild case can induce severe wasting, and that operative treatment is indicated, though food can pass through the pylorus. There is little doubt that the extent of the condition may vary in different cases, and the diagnosis and decision as to operation be very difficult. Mild cases may occur and the symptoms be limited to dyspepsia and occasional attacks of vomiting, but terminating in later life with dilatation of the stomach and hypertrophic stenosis of the pylorus.

15. **Smallpox.**—Nash thinks the red light treatment of smallpox is still a subject for investigation, but that there is some evidence in its favor.

16. **The Bacillus Coli.**—Eyre has investigated the intestines of a large number of animals, including fishes, and in all he found the *Bacillus coli* in abundance. He thinks that further study in this direction is indicated before assuming that the presence of the *Bacillus coli* is always synonomous with sewage contamination.

17. **Meniere's Disease.**—In the case reported by Parry the insertion of a seton in the neck produced marked alleviation of symptoms. He has looked over the literature and finds no cases where a seton has been tried in this condition. His case was a severe one and he believes a milder case would yield much more beneficial results.

18. **Alopecia Areata.**—Whitfield reports four cases of alopecia which had resisted treatment until relief followed attention to ocular defects. He thinks that in some cases nervous irritation consequent on undue effort to focus on fine objects causes the onset of the falling out of hairs in people whose health is not robust, and in any case inquiry into the condition of vision will do no harm.

Indian Medical Gazette, Calcutta.

February.

19 *Blood Examination of 3,400 Cases of Febrile Disease in Bombay. (To be continued.) Arthur Powell.
20 Enlarged Prostate. W. J. Wanless.
21 Cholera Epidemic in Puri Town and District in July, 1902, and Its Spread Throughout Lower Bengal. S. Anderson.

21½ Symblepharon and Its Treatment; Two Cases Treated Successfully by Transplantation of Flaps of Mucous Membrane from the Mouth. Harry Gidney.

19. **Blood Examination.**—In an examination of 3,413 cases, parasites were found by Powell in 2,652. The great majority, 2,542, were malarial. In 94 cases relapsing fever spirilla were found. In 15 cases the plague bacillus and in 1, filaria nocturna. The leucocyte count was also found useful, giving a suspicion of pneumonia, internal abscess, filaria and other worms. He thinks it a safe estimate to say that nine-tenths of the cases of fever in Bombay, which last ten days or more, are due to either tubercle, enteric fever or abscess. His findings confirm Christopher's and Stephens' observations that the large mononuclear cells are always increased in malaria. If after a search of ten minutes no malaria parasite is seen, but the mononuclear cells seem increased, he continues his search, but if their percentage is low, he discontinues the search. In chicken-pox he finds the large mononuclears also increased, and in liver abscess he gets but little help from the blood examinations. Another point which he has formerly drawn attention to is the increase of eosinophiles in case of guinea worms. In 117 cases of plague the blood was examined, and in 15 of these the bacillus was found. In the beginning of the year there was a particular type of septic plague in which the rule was to find the bacillus in every field. The patients always died. He can also confirm Miss Corthorne's observation that the coagulability of the blood as a rule is diminished in plague. In relapsing fever there are many cases which never relapse, and are called malaria. It is only a systematic examination of the blood that determines the condition. He remarks as to the peculiar facies of spirillum fever cases, an ashy complexion, a quiet, sad, resigned, or docile expression which contrasts strongly with the dull, blear-eyed, obfuscated plague patient. Pneumonia is often difficult to diagnose, and he thinks there are cases of so-called *pneumonia* where the lungs are not involved. Where sunstroke is common, cases of fulminating pneumonia are also found. He asks if some of these cases of sunstroke might not be acute pneumococcus infections. Blood examinations were negative in the majority of cases of plague; also in many cases of pneumonia, tuberculosis, pleurisy, enteric fever and occasionally in venereal diseases, leprosy and liver abscess, smallpox, chicken-pox, etc. He has never seen anything suggestive of Malta fever in Bombay.

Annales Pasteur, Paris.

Last indexed XLI, page 752.

22 (XVII, No. 8.) Recherches sur la fermentation du lait (of milk). H. Tissier and P. Gashing.
23 La garotilha (cattle disease in Brazil). E. Marchoux and A. Salimbeni.
24 (No. 9.) La spirillose des poules (of fowls). Ibid.
25 Emploi de la bombe calorimétrique de M. Berthelot pour démontrer l'existence de l'arsénic dans l'organisme. G. Bertrand.
26 Sur la production de la *mannite par* les ferments des maladies des vins (in grape diseases). P. Mazé and A. Perrier.
27 Contribution clinique à la sérothérapie de la peste. A. Duprat.
28 Reports of Antirabic Institutes at Lille, Pernambuco and Kharkov.
29 (No. 10.) Sur la resorption phagocytaire des ovules chez les tritons. C. Pérez.
30 *Yeast and Suppuration. E. Sergent.—Levure de biere et suppuration.
31 Recherches expérimentales sur l'inoculation de la syphilis au singe (bonnet chinois). C. Nicolle (Tunis).—*Inoculation of* 3 monkeys with syphilis.

30. **Yeast in Suppuration.**—Sergent produces an extract of brewers' yeast by *maceration of the dried residue* after the yeast has been killed with alcohol and the alcohol removed. The extract possesses the same power to cure suppurative processes as the live yeast. He thinks that the pathogenic properties of yeasts should forbid their use alive.

Revue de Therapeutique, Paris.

Last indexed XL, page 1763.

32 (LXX, Nos. 9-11.) **Propriétés* physiologiques et thérapeutiques d'un sérum retiré du lait (serum from milk). R. Blondel (Paris).
33 *Tincture of Horse-chestnut in Pelvic Affections. S. A. de Veney.—La teinture de marrons d'Inde dans les affections du petit bassin.
34 (No. 12.) Traitement du diabète et de la tuberculose pulmonaire des diabétiques. A. Robin.
35 (No. 13.) La médication hypotensive. H. Huchard.
36 (No. 14.) *Les intoxications d'origine carnée (from meat). Chevalier.
37 (No. 15.) Breast Feeding. L. Dubrisay.—L'allaitement au sein.
38 *Procéde de photothérapie de la variole à emprunter aux Chinois et aux Annamites. J. Regnault.
39 (No. 16.) Foreign Bodies in Stomach. A. Benoit.—Extraction des corps étrangers de l'estomac et de la moitié inférieure de l'esophage.
40 *Nouveaux resultats* photothérapeutiques. Foveau de Courmelles.
41 (No. 17.) L'intoxication *par les champignons* (mushrooms). Chevalier.
42 (No. 18.) Les accidents du sérum antidiphthérique. Leur innocuité. G. Coldefy.
43 (No. 19.) *La neurasthénie d'origine dyspeptique. A. Robin.
44 (No. 20.) **Cocainisme* aigu (auto-observation). L. L Archambault.
45 Le radium. Jumon.
46 (No. 21.) La lecithine. H. Labbé.
47 (No. 22.) Physiologic Study of Convallaria. Laigre.—Muguet et suc de muguet.
48 (No. 23.) Extraits d'organes animaux et extraits d'organes végetaux. P. Carles.
49 Le vin et les boissons alcooliques chez les dyspeptiques. A. Mathieu.
50 (No. 24.) Prophylaxie de la blennorrhagie. J. Janet.
51 Dyspepsie et dyspeptiques. H. Huchard.

32. **Serum Treatment with Whey.**—Blondel ascribes remarkable therapeutic value to subcutaneous injections of what he calls "milk serum." The milk is quickly coagulated by adding an acid and then heating to 100.5 F. It is then neutralized with soda, cooled and filtered through a bougie. Daily subcutaneous injection of 20 c.c. of this serum produces no disturbances or inconveniences in a healthy man, but it evidently *stimulates metabolism*. In disease it reduces the temperature and lowers the blood pressure. These effects are constant and durable. The mechanism is not that of an antitoxin, but the "lacto-serum" acts by its re-enforcement of the *normal* processes of defense on the part of the organism against all toxins in general by its oxidases and the leucocytosis which it induces. He cites a number of instances to show its efficacy in various infections. In puerperal fever its action is most beneficent at the stage when the toxins have passed into the blood and the temperature remains high after curetting and disinfection of the uterus. Parallel cases illustrate best of all the advantages of this *milk-serum treatment*. *A little quinin given* with the serum seems to enhance its action in puerperal fever. In a severe case of erysipelas the temperature dropped from 40.5 C. to normal in five hours after injection of 10 c.c. of the lacto-serum. The local symptoms also gradually subsided to a complete cure by the sixth day.

33. **Tincture of Horse-Chestnut in Pelvic Affections.**—De Veney confirms by new experiences his previous announcements in regard to the peculiar efficiency of tincture of *horse-chestnut* for soothing the pain and reducing the size of hemorrhoids. He gives it in 10 drop doses before meals twice a day, *increasing gradually* by 10 to 15 drops a day, but with great care not to go beyond the dose needed by the individual subject. Too large a dose exaggerates instead of soothing the pains. In his experience this treatment has cured in a single day rebellious cases of hemorrhoids accompanied by rectitis with glairy stools, when the tincture was supplemented by equal parts of tincture of aloes or by a 1 cg. pill of silver nitrate morning and night. In case of indolent hemorrhoids due to habitual constipation, *he adds to the tincture equal parts* of tincture of nux vomica. He finds the horse-chestnut tincture also useful for external application as an adjuvant in some cases of hemorrhoids and varices, but its principal field is in reduction of congestions in the small pelvis. It acts by means of its influence on the sympathetic system, *modifying the* circulation throughout the small pelvis, and giving the internist another weapon against the so-called surgical affections of this region.

36. **Intoxication from Meat.**—Chevalier reviews the various symptoms characteristic of intoxication from diseased or rotten meat and botulism. Treatment should be symptomatic. If fifteen to twenty hours have elapsed, the stomach pump will probably be useless and a microbian infection is probably superposed on the intoxication. The intestines should be evacuated and disinfected. For the latter purpose he prefers beta naphthol, benzonaphthol, betol or salol, combined with pulverized charcoal. Bouchard has established that *the charcoal*

reduces the toxicity of substances in the intestine. The bile function should be stimulated with calomel and in severe cases the glycogenic functions of the liver may be stimulated with injections of ether. Diuresis should be maintained by drinking freely, especially lactosed milk, which is the most efficient diuretic in such cases. Warm drinks to promote sweating and tepid baths will also be found useful. Convulsions, etc., should be treated symptomatically.

38. **Red Treatment of Smallpox Among the Chinese.**—Regnault describes the methods of treatment of smallpox in China and Annam. The eruption is washed off with a lotion colored a brilliant red with some harmless vegetable dye. The parts are thus stained red. In Annam red curtains are also hung up around the bed. These red applications have been extolled for centuries as effectual in smallpox, which has been known and studied in China for three thousand years.

43. **Neurasthenia of Dyspeptic Origin.**—This article is taken from Robin's work on "Diseases of the Stomach." It treats of the particulars of gastric neurasthenia, the chemical conditions and the therapeutic conceptions of neurasthenia, summarizing in conclusion the indications for treatment and the means of realizing them. After curing the dyspepsia he first tries the glycerophosphates, magnesium or fluorids, sending the patient into the country. If this fails, he tries iron and arsenic, supplemented by strychnin, hypophosphites or phosphoric acid in dosage which he minutely details. If these fail, he abandons drugs and restricts all treatment to physicotherapy, hygiene and psychic measures. If all these fail, the Weir Mitchell treatment may be applied. He relates examples of the various forms of these "nervous echoes" of digestive disturbances.

44. **Auto-observation of Cocain Intoxication.**—Archambault's throat was sprayed with cocain for removal of a small polyp. Between 1 and 2 gm. of cocain were used and symptoms of acute intoxication developed afterward, first bulbar and then cortical, the two phases lasting a total "five hours of horror," as he describes it, barely escaping a fatal termination. He relates in detail the various subjective symptoms, the anesthesia of legs, arms and face, loss of the sense of space, an indescribable anguish with intolerable pains in the heart and stomach region. After three hours of repeated artificial respiration, the head low, sinapisms to the body with 2 c.c. of ether and 1.5 gm. of caffein subcutaneously, the cortical phase developed with violent excitement and exaggeration of the pains. He was unable to leave his bed for six days, but by the tenth day no traces were left of his intoxication experience. [A somewhat similar experience was related by a confrère at a recent meeting of the Berlin Internal Medicine Society, February 15. A physician had swallowed inadvertently a cotton wad soaked with cocain which he had been applying to a papillomatous swelling in the nose. He drank at once some strong coffee and a quantity of brandy, but the excitement and distress were not relieved and the dyspnea became threatening. Artificial respiration had to be kept up until the respiration center could recuperate, and the physician in charge sent to the neighboring fire department for the life-savers. Three men responded to the call, bringing the oxygen apparatus, and as they had been drilled they raised and lowered the patient's arms, while the third squeezed the oxygen bulb at each inspiration. The patient was thus saved after several hours' work. Large amounts of grape sugar were found in his urine during the first three days and also paired glucuronic acid, the latter not vanishing until the seventh day. In both this and the case above the patients thought they were dying, and made arrangements for the funeral, etc. Archambault remarks that the reassurances of the physician are peculiarly needed in cocain intoxication.—Ed.]

Archiv f. Verdauungskrankheiten (Boas'), Berlin.

Last indexed pages 619 and 743.

52 (X, No. 1.) *Ueber die pathologischen Veränderungen am Digestionstraktus bei der perniciösen Anemie. K. Faber und C. E. Bloch (Copenhagen).
53 *Unwillkürliche Aerophagie bei Dyspeptikern. A. Mathieu (Paris).
54 *Weber Test for Occult Hemorrhage in Stomach and Intestines. Hartmann (Hamburg).—Ueber Anwendung und diagnostische Verwertung der W'schen Blutprobe bei occulten Magen- und Darmblutungen.
55 Zwei durch Balantidium coli hervorgerufene Colitis-Fälle (Balantidium Colitis). W. Robin (Warsaw).
56 Ueber die Pepsin-Wirkung im Magen (in stomach). Schüle.

52. **Digestive Tract in Pernicious Anemia.**—This article, as it appeared in Danish, was reviewed in The Journal, page 407.

53. **Involuntary Swallowing of Air by Dyspeptics.**—Mathieu has found that 5 to 6 per cent. of all cases of stomach affections in his experience present more or less marked aerophagia. The subjects are unconscious of it and merely complain of the eructation of gases and more or less flatulence. He has established that frequently what they suppose to be an eructation is in reality an involuntary swallowing of air. The flame of a lighted candle held to the mouth does not blow out but remains immovable, showing that there is no emission of air. Sometimes the air is belched up as soon as it enters the stomach, sometimes it accumulates until the distension becomes marked and the air escapes into the intestine with a characteristic sound. One subject found that this swallowing of air occurred more than five thousand times during the day, but never at night or when he was absorbed in his business. The swallowed air may present the complete picture of severe gastrointestinal flatulence. He distinguishes between the aerophagia of nervous dyspepsia, the spastic aerophagia of severe neurasthenia and hysteria and the secondary aerophagia accompanying a severe gastric affection. He describes these forms in detail. As soon as the subjects can be convinced that their troubles are due to this cause they easily conquer it. The spasmodic swallowing can be controlled or prevented by keeping the mouth open, using something to serve as a gag if necessary. The underlying dyspepsia must be treated, and another indication is for measures to reduce the excitability of the stomach. He prefers for this codein and cherry laurel water, but morphin and other antispasmodics may be necessary in certain cases. The best means to abort an attack is a saturated solution of chloroform. He gives it in tablespoonfuls at the beginning and during an attack, mixed with water, to a maximum of 4 to 6 tablespoonfuls a day. Antiseptics for the intestines are not needed. The gaseous fermentations to which the flatulence was ascribed not existing in reality, measures against them are only liable to entail drug gastritis. Isolation may be necessary for severe neurotic cases. (Compare review of Stern's article on the subject, page 676.)

54. **Weber Test for Occult Stomach and Intestinal Hemorrhages.**—Hartmann concludes from his research and experience that occult bleeding never occurs in nervous stomach affections, but that it is liable to be artificially induced even in healthy subjects when the stomach content is siphoned out. He consequently prefers to examine the feces as the routine measure. He has found that the findings of the Weber test are reliable only when no meat has been ingested beforehand, not even well-cooked meat. When used with these precautions and the foresight required it is a very valuable and frequently a decisive means of clinical investigation, especially in case of round ulcer of the stomach. The occult hemorrhages occur in both benign and malignant conditions entailing insufficiency of the stomach functions. The probabilities are in favor of the existence of a carcinoma when the blood findings in the feces are constantly and decidedly positive with good motility, and absence of free HCl and of lactic acid, even when all other signs of cancer are lacking. The Weber test was described in The Journal, xli, p. 1566, paragraph 92. Hartmann's experience is the result of the systematic investigation of every case of a gastrointestinal affection at the Marien Hospital at Hamburg last winter.

Berliner klinische Wochenschrift.

57 (XLI, No. 7.) Zum klinischen Verhalten des Epithelioma chorioektodermale. L. Landau. Five cases.
58 *Ueber das Ficker'sche Typhus-Diagnosticum. J. Meyer.
59 Antitoxine und Agglutinine im Blut immunisirter Thiere. F. Figari (Genoa).
60 *Transmission of Hum[illegible] J. Fibiger and C. O. Jensen ([illegible] der Tuberculose des Menschen [illegible] in No. 6.)
61 *Ist für die Entstehung [illegible] ein socialer Factor massgebend? O. Rosenbach.
62 (No. 8.) *Ueber die hemolytische Eigenschaft des Blutserums bei Urämie. H. Senator (Berlin).

63 Movements in Paralyzed Ocular Muscles in Case of Korsakoff's Psychosis. A. Westphal.—Ueber Bewegungserscheinungen an gelähmten Augenmuskeln in einem Fall von Korsakowscher Psychose.
64 *Ueber ultramicroscopische Untersuchungen von Glycogen, Albumin Substanzen und Bacterien. E. Rachlmann.
65 *Ueber Hemolyse durch Carcinom-Extracte. Kullmann (Butzbach).
66 *Routes of Tuberculous Infection in Child's Body. Westenhoeffer.—Ueber die Wege der tub. Infection im kindlichen Körper. (Commenced in No. 7.)
67 Das Epithelioma chorioecktodermale. L. Pick. (Commenced in No. 7.)
68 Recent Progress in Chemistry of Albumin and Its Clinical Importance. Klemperer. From society report.

58. **Ficker's Typhoid Diagnosticum.**—See editorial last week, p 775.

60. **Transmission of Tuberculosis from Man to Cattle.**—Ten cases of clinical tuberculosis are described in detail, the bacilli from which were inoculated into ten calves. In 2 of the cases the bacilli were not at all or very slightly virulent; in 3 weakly and in 5 extremely virulent. Among the 5 cases of apparently primary tuberculosis of the digestive tract in children, the bacilli in all but 1 displayed marked virulence. The only source for the primary tuberculous affection in the intestines which could be discovered in 2 cases was insufficiently sterilized milk. The parents were healthy and no cases of tuberculosis were known in the environment. In both cases the bacilli proved exceptionally virulent for the calves. Fibiger adds that he found evidences of tuberculosis in 116 out of 213 cadavers examined. They included 5 cases of unequivocal primary intestinal and mesenteric tuberculosis, 2 of probably primary tuberculous affections of the digestive tract and 8 of isolated tuberculosis of the mesenteric glands or lymphatics of the colon. This is a proportion of 6 per cent. of all the cadavers examined and of 11 per cent. of the cadavers with a known tuberculous history. The number of children's cadavers was 79, of which 25 were tuberculous, and in 4 the affection was in the digestive tract and evidently primary. This is a proportion of 5 or 6 per cent. of all the children cadavers and of 16 to 20 per cent. of all the tuberculous children. Heller and Wagener published last fall that they found 16 cases among 76 child cadavers, and 28 among 600 cadavers of all ages, the deaths due to various causes. Few are able to examine the digestive tract of child cadavers with Heller's painstaking technic, and consequently more careful examination might show an equally large percentage in others' material. Even as it is, the statistics that have been published show that primary tuberculosis of the intestines is not a rare affection.

61. **Is Tabes Due to Syphilis or to Some Social Factor?**—Rosenbach sharply criticises the statistics which Erb marshals to sustain his argument that syphilis is the main factor in the origin of tabes. Rosenbach mysteriously hints that they open quite *another perspective* for the pathogenesis of tabes than what Erb intends. (See page 620.)

62. **Hemolytic Property of Serum in Uremia.**—Senator has examined the blood of 3 uremic subjects in respect to the hemolytic property. The findings were contradictory. In his last case, which he describes in detail, there was no inhibition of hemolysis while it was marked in the others. He urges further study of the subject and refers to Micheli's recent statement that an antiautohemolytic action occurs exceptionally, independent of morbid changes, but seems to be more frequent in uremia than in other conditions.

64. **Ultramicroscopy.**—Among the interesting points noted by Rachlmann with the new "ultramicroscope" is that the action of bactericidal fluids can best be studied with this instrument. The cessation of movements among the bacteria occurred at a constant moment for given disinfectants and given strengths. The improvement consists in the focusing of the light on the field, and he found bright summer sunlight the best for the purpose. Chemical changes in fluids can be visually traced and certain physiologic processes divined from the findings. Turning a weak electric current into a fluid containing bacteria and albuminoids caused the entire swarm to rush to the positive pole, while they all returned to their original position as soon as the current was turned off, but not a trace of life could be detected in the fluid thereafter.

65. **Hemolysis by Cancer Extract.**—Kullmann's research on rabbits has demonstrated that an extract of cancer tissue is powerfully hemolytic.

66. **Routes of Tuberculous Infection in Child's Body.**—Westenhoeffer believes that Koch is right in attributing minor importance to tuberculous milk and meat as the source of tuberculosis in man, although Koch, he thinks, was mistaken in denying the identity of human and bovine tubercle bacilli. He also agrees with von Behring in ascribing to early infancy the inception of tuberculosis, but he does not regard it in the same light as the latter. His opinion is that the infant becomes infected during the period of the first dentition, when it is *putting everything it can reach in its mouth,* and the attendants give it what it can not reach, rub its gums, and test the warmth of the milk by touching the tongue to it or putting a finger in it. The inflamed condition of the gums favors infection. As the child cries and is restless, its rattle is picked up from the floor and given to it to bite on, etc. The child creeps on the floor and then sucks its thumb for hours. The mother feels of its gums just after she has been, perhaps, washing the handkerchiefs of her consumptive husband. He appeals that the profession must not wait for the child to be brought for medical advice, but the state, *community,* societies, the citizen and all who have raised the antituberculosis standard must go to the infant and surround him with hygienic care, transferring him to some other environment if necessary. He thinks that the infant's hands should be washed a hundred times a day if necessary, and nothing should be given back to it which has once fallen on the floor or, better *still, not give it anything to bite on.* These relations of the nursling to the family are the true source of tuberculosis; infection from cows is unimportant in comparison. He announced in the course of his remarks that the meat of cattle affected with tuberculosis never contains tubercle bacilli, with the sole exception of meat from cattle with generalized miliary tuberculosis.

Centralblatt f. Bakteriologie, etc., Jena.

Last indexed page 685.

69 (XXXV. No. 2.) Die "Streptothrix lingualis" (Syn. Vibrio, Spirosoma linguale) im Munde des Gesunden und des Diphtherischen (in mouth in health and in diphtheria). A. Bajardi (Rome).
70 Origin of a Pink Mold. E. Klein and M. Gordon.—Ueber die Herkunft einer Rosahefe.
71 Der Aspergillus der "Tokelau." C. Wehmer. Indigenous disease in Southern Pacific.
72 Gas-Bildung und Gas-Atmung von Bakterien. A. Schittenhelm und F. Schröter.
73 Zur Lokalisation der Influenza an den Tonsillen. L. Kamen.
74 *Orange-Colored Perspiration. C. O. Harz (Munich).—Pomeranzenfarbiger Schweiss.
75 Die Bakteriologie des Paratyphus. H. Kayser.
76 *Behavior of Tissues in Respect to Tetanus Toxin. A. Ignatovsky.—Verhalten der verschiedener Gewebe des tierischen Organismus gegen das Tetanusgift. (Commenced in No. 1.)
77 Zur Biologie des Milzbrandbacillus und sein Nachweis im Kadaver der grossen Haustiere (anthrax bacillus in domestic animals). J. Bongert. (Concluded.)
78 Ueber ein Eiter-Spirillum (in pus). D. Mezincescu. (Bukharest).
79 Ueber die Diphtherie-Toxin-Kurve. F. Murillo (Madrid).
80 Ueber die Aetiologie der Schlafkrankheit (sleeping sickness). A. Bettencourt, A. Kopke, G. de Rezende and Correia Mendes [illegible]
81 *Morpholog [illegible] über einen Fall von W [illegible] drophobia). E. Bertarel [illegible]
82 *Bacterial [illegible] Goat and Sheep. O. Uhlmann (Lengefeld).—Der Bakteriengehalt des Zitzenkanals bei der Kuh, der Ziege und dem Schafe.
83 The Giant Trypanosoma Discovered in the Blood of Bovines. A. Lingard (Poona).
84 Study of Natural and Artificial Immunity to Anthrax. O. Bail and A. Petterson.—Ueber natürliche und künstliche Milzbrandimmunität. (Concluded.)
85 The Reactions of the Blood in Experimental Diabetes Mellitus. J. E. Sweet. A contribution to our knowledge of the thermolabile complements.
86 *Die Desinfections Mittel aus der russischen Naphtha. J. Kupzis (Tiflis).
87 Ueber die Anwendung des Neutral-Roths (Rothberger) zur Differenzierung von Streptokokken. M. H. Gordon.
88 Cultivation of Bacteria in a Native Mucoid Solution. L. Langstein and M. Mayer.—Versuche von Bakterienzüchtung in einer nativen Mucoidlösung.

74. **Orange-Colored Perspiration.**—Harz found a small, nonmotile bacillus accumulated thick on and in the hairs in the *axillæ* as the cause of the orange sweat. It had not caused

any disturbance except the coloring of the sweat, and consequent staining of the linen. He calls it the *Bact. auratum.*

76. **Tetanus Toxin in Tissues.**—The brain, liver, lungs, muscles and other organs from animals that have succumbed to tetanus are able to induce tetanus when injected into mice. This occurs irrespective of the amount of blood in the tissue scraps. The symptoms observed differ, however, in some respects from typical tetanus.

81. **The Negri Bodies in Rabies.**—Bertarelli found these bodies in the cadaver of a lad of 12 who had succumbed to hydrophobia. They were found exactly as described by Negri, but he does not think that the causal connection with the disease is yet established.

82. **Bacteriology of Milk Ducts in Bovines.**—Uhlmann found numbers of bacteria and streptococci in every section of the papillary duct of cows, goats and sheep. It is, therefore, impossible to obtain an absolutely germ-free milk from the domestic animals under any circumstances.

86. **Naphtha in Disinfection.**—Kupzis states that the alkaline by-products of Russian naphtha possess high disinfecting power. It diminishes in proportion as their boiling point rises.

Deutsches Archiv f. klinische Medizin, Berlin.

Last indexed page 342.

89 (LXXIX, Nos. 1-2.) *Beiträge zur Kenntnis der Blutgerinnung (coagulation). P. Morawitz (Tübingen).
90 *Cutaneous Perspiration. Schwenkenbecher (Ibid.).—Ueber die Ausscheidung des Wassers durch die Haut von Gesunden und Kranken.
91 Perverse Movements of Vocal Cords in Posticus Paralysis. F. Sinnhuber (Berlin).—Klinisches und Experimentelles zur Lehre von den perversen Stimmbandbewegungen bei doppelseitiger Postikuslähmung.
92 Zur Pathologie des Ductus arteriosus (Botalli).—O. Wagener (Kiel).
93 Lung Affections in Measles. C. Hart (Dresden).—Anatomische Untersuchungen über die bei Masern vorkommenden Lungenerkrankungen.
94 *Influence of Blood Pressure on Fluid Interchanges. O. Hess (Marburg).—Ueber die Beeinflussung des Flüssigkeitsaustausches zwischen Blut und Geweben durch Schwankungen des Blutdruckes.
95 Chemical Changes in Paralyzed and Degenerated Muscles. T. Rumpf, Gronover and Thom.—Weitere Untersuchungen über Polyneuritis und die chemischen Veränderungen gelähmter und degenerierter Muskeln.

89. **Study of Coagulation of Blood.**—Morawitz ascribes the coagulation of the blood to the concerted action of at least three substances, thrombogen, thrombo-kinase and the calcium salts. The first is found only in the blood and lymph, the second can be produced by all the tissues.

90. **Elimination of Water Through the Skin.**—Schwenkenbecker thinks that water evaporates through the skin outside of the secretion of the sweat glands. This cutaneous perspiration is a regulating process, but the amount averages as much as 28 gm. an hour for a young man of ordinary size on a moderate diet and at moderate work. He conducted experiments on a large number of subjects, the results of which are tabulated, and the technic described. He comments on the paucity of our present knowledge in regard to the water metabolism, which was his inspiration for the present monograph.

94. **Influence of Blood Pressure on Fluids in Tissues.**—Hess thinks that the variations in the blood pressure have a direct effect on the concentration of the blood only in the veins, not in the arteries. The concentration of the blood may differ in these two systems. This is soon compensated and regulated by the streaming of the blood into the arteries, and he ascribes to the lungs this regulating mechanism. The rôle of regulator is favored by the independent circulation in the lungs. He describes the mechanism as he understands it, and comments that this promptly functioning regulating arrangement enables the body to supply normally concentrated blood to the organs, even in case of extreme variations in the blood pressure. After loss of blood the organism aspirates lymph at once to substitute the missing quantity of blood, but the restoration of the concentration to normal is a more gradual procedure. He thinks these views explain the changes in the blood at high altitudes, and in case of uncompensated valvular defects. He urges comparative examination of blood taken from an artery and from a vein as liable to solve the problem of the changes observed in these conditions. He gives the particulars of research on 17 dogs, and emphasizes the importance of this regulating function which he has discovered in the lungs.

Therapeutische Monatshefte, Berlin.

Last indexed XLI, page 1377.

96 (XVII, No. 10.) Treatment of Deafness with Air Waves from a Siren. A. Musehold.—Behandlung der Schwerhörigkeit mit Luftwellen der Sirene.
97 Zur Behandlung der chonischen Gonorrhoe. E. Falk.
98 Zur Abortiv-Behandlung der Gonorrhoe. F. Fuchs.
99 Zur Therapie des Diabetes mellitus. Lenné.
100 Die physiologische Wirkung des Solbades und des kohlensäurehaltigen Solbades (brine baths). H. Keller.
101 Health Resorts for Scrofulous Children. E. Vollmer.—Seehospize oder Kinderheilstätte in Solbädern.
102 Ueber Unguentum argenti colloidalis Credé, seine Anwundungsweise und Wirkung. Rommel.
103 Zur Kasuistik der Collargol-Anwendung. P. Bong.
104 *Nose Obturator to Arrest Hemorrhage. E. Aufrecht (Magdeburg).—Eine Nasenobturator zur Stillung von Nasenblutungen.
105 (No. 11.) Zur Cancroin-Behandlung des Carcinoma. A. Hagentorn (Dorpat).
106 *Potassium Permanganate in Acute Opium and Morphin Intoxication. W. O. Moor (St. Petersburg).—Ueber die Behandlung der akuten Opium- und Morphium-vergiftungen mit Kaliumpermanganat.
107 The Ottilie Waters in Therapeutics. M. Heim.—Die Heilwirkungen der Ottilienquelle des Inselbades.
108 Favorable Reports on Hedonal, Citrophen and Ichthyol-Vasogen and Iodin-Vasogen, etc.
109 (No. 12.) Die Anatomie der Kehlkopfpolypen (laryngeal polyps). v. Hansemann.
110 Abdominal Massage in Heart Disease. A. Neumann and F. Frick (Nauheim).—Bauchmassage bei Herzkranken.
111 Ueber spontane Heilungsvorgänge beim Karzinom. H. Mohr. (Commenced in No. 11.)
112 Ueber Bereitung von Kefir. Hecker.
113 Zur inneren Behandlung der Urethro-Blennorrhoe. E. Saalfeld.
114 Treatment of Corneal Ulcers in General Practice. E. Cramer.—Die Beurteilung und Behandlung der eitrigen Hornhauterkrankungen in der allgem. Praxis.
115 Alcohol Compresses. J. S. Kolbassenko.—Ueber Alkoholumschläge.

104. **Nose Obturator.**—Aufrecht's convenient little instrument for arresting bleeding from the nose consists of a long, narrow bag of thin rubber, somewhat smaller in diameter at the center. A stiff tube with numerous perforations is inside the rubber bag, and the whole is connected with a rubber bulb. The bag is introduced collapsed into the nose, and then inflated with the bulb.

106. ***Potassium Permanganate in Opium Poisoning.***—Moor's research explains the efficacy of subcutaneous injections of potassium permanganate in morphin poisoning. The permanganate combines with fluids containing albumin to form a powerfully oxidating substance, which is not altered by the blood and yet can give up its oxygen to morphin. No other alkaloid in his tests was oxidized in this way except quinin.

Zeitschrift f. Krebsforschung, Jena.

116 (I, No. 3.) *Cancer and Soil. W. R. Hoeber.—Neubildung und Boden.
117 **Simultaneous Occurrence of Various Tumors on the Same Person.* von Hansemann.—Das gleichzeitige Vorkommen verschiedenartiger Geschwülste bei derselben Person.
118 Elimination of Chlorids, Phosphates, Nitrogen and Ammonia in Case of Carcinoma. A. Braunstein (von Leyden's clinic, Berlin).—Beobachtungen über die Ausscheidung der Chloride, der Phosphorsäure, des Stickstoffs und Ammoniak bei Carcinom.
119 Cancer on the Island of Helgoland. E. Lindemann.—Ueber Krebs-Statistik auf Helgoland.
120 *Beitrag zur Krebs-Statistik. A. Wolff (Marklissa).
121 *Ein Vorschlag zur Erforschung der Aetiologie des Carcinoms. K. Scherk (Homburg).

116. **Cancer and Soil.**—Hoeber is "police medical officer" at Augsburg, Germany, and presents a comprehensive study of the conditions which accompany cancer in that city of 84,097 inhabitants. The average death rate is 24.74 per 1,000, of which 5.5 per cent. are due to neoplasms. The number of fatal cancers in women is 65 per cent. to 35 per cent. in men. He gives a number of tables and maps showing the cancer houses, the soil and geological foundation, etc., and the coincidence of tuberculosis. He was unable to discover any connection between the occurrence of cancer and the height, drainage and other conditions of the houses. Both cancer and tuberculosis were most prevalent in the poorer quarters.

117. **Simultaneous Cancers of Different Kinds on One Subject.**—The coincidence of cancer in the stomach and glioma in the brain has been observed by von Hansemann in one case.

In another a glioma of the brain was accompanied by a cholesteatoma of the base of the brain. The latter case was the more remarkable as the first symptoms were observed after a fall from a horse, the subject an intelligent and previously healthy lad. The coincidence of carcinoma and sarcoma is extremely rare, but he has occasionally encountered carcinomata with sarcomatous stroma. They mostly occur in the ovaries, but he found one once in the esophagus, and once in the gall bladder, or pharynx, and they have been noted in the thyroids of animals. There are not more than 20 on record, and they usually affected young subjects, and were peculiarly malignant. In regard to pluricentric carcinomata, he states that he has seen a number, and notes that the disposition to plural carcinomata is especially marked in the paired organs. He mentions the peculiarity of diffuse carcinoma, involving an entire organ, to retain the function of the normal organ cells, as, for instance, no diabetes occurs in case of diffuse carcinoma of the pancreas, and no compensatory hypertrophy of the sound kidney is observed when its mate is affected with an infiltrating cancer. Superficial carcinoma is frequently multiple, especially the forms which are preceded by some inflammatory cutaneous affection. The coincidence of independent cancers has been observed in only a few instances in his experience. In one case a cancer in the stomach was accompanied by a cancroid on the right foot. In another, a carcinoma developing from an ulcer in the stomach coincided with carcinoma in both ovaries. In another, a carcinoma of the stomach was accompanied by a branchiogenic carcinoma in the neck; another presented a scirrhus of the stomach with an adenocarcinoma in the rectum; and still another, a cancroid in the esophagus with an adenocarcinoma in the stomach. These are all he has found in 1,000 cases of carcinoma since 1895. He has collected 22 examples from the literature in which carcinoma occurred simultaneously at neighboring points or at different parts of the alimentary canal or in parts with no connection between them, the only points in common in the latter group being that both cancers were carcinomata and on the same subject. He has never known of a case in which there were more than two cancers. In conclusion he remarks that the causes of cancer may be as manifold as there are different kinds of cancer. He thinks that the curable cancroids and the peculiarly malignant pluricentral carcinomata may prove to be quite separate entities. The possibility of a parasitic origin seems most probable for certain forms of sarcoma, especially those which develop regularly in multiple eruptions. He regards a parasitic origin as inconceivable for certain kinds of carcinoma and sarcoma, but for other kinds it is possible, but not established to date.

120. **Cancer Statistics.**—Wolff's investigations have revealed a number of cancer nests *in his part of Germany*, with a population of 11,703, showing 159 cancers in nine years. The stomach was affected in 86, the uterus in 25, and 98 of the subjects were women. In several instances three members of one family were affected. He calls attention to the predominance of cancers in organs with an opening to the exterior, like the stomach and uterus. He also suggests that exposure to the light and air seems to reduce the malignancy of cancer. Cutaneous neoplasms are more benign and exhibit a slower growth than those developing in the enclosed cavities in the body. In order to obtain more concerted action in cancer research he pleads for compulsory notification of cancer.

121. **Etiology of Cancer.**—Scherk *suggests the possibility* that the cause of cancer may lie in some disturbance in the anorganic balance in the vital processes in the cell. An altered proportion of mineral matters in the blood and organic juices may prepare the soil for bacteria or protozoa with cancer as the result.

Riforma Medica, Palermo.

Last indexed page 566.

122 (XX, No. 2.) *L'emoantitossina. Figari.
123 Sugli eritrociti granuloso. V. Marzocchi.
124 (No. 3.) *Contributo allo studio del fonomioclono. F. Sicuriani (Siena).
125 *Sull'azione tossica di alcuni estratti organici. G. Ghedini (Turin). (Commenced in No. 2.)
126 (No. 4.) *La cefalopina e l'organoterapia cerebrale. M. Sciallero (Maragliano's clinic, Genoa).
127 Tumori del cervello (of brain). A. Testi. (Commenced in No. 3.)
128 (No. 5.) Alopecia areata da trauma. F. Sprecher.
129 Malattia di Dercum con osteomalacia. P. Pennato (Udine).
130 Metabolism in dementia precox. A. d'Ormea and G. Maggiotto.—Ricerche sul ricambio materiale nei dementi precoci.

122. **Improved Tuberculosis Antitoxin—*Hemoantitoxin*.**—Maragliano now produces a 20 per cent. solution of his tuberculosis antitoxin in an aromatic and alcoholic vehicle, containing likewise 5 per cent. of hemoglobin and 10 per cent. glycerin. A tablespoonful is administered before meals four times a day, and patients take it with relish. Figari relates that this antitoxin treatment by the mouth has scored in the clinic as fine results as those obtained in experimental research with the antitoxin by the mouth. He gives the details of 18 cases and mentions particularly the marked increase in the agglutinating power and the antitoxic and antibacillary properties acquired by the serum.

124. **Phono-Myoclonus.**—Bernabei applies this term to a continuous rumbling noise heard in the muscles in certain subjects when the ear is applied to any part of the body. The sound is loudest over the front of the chest, legs and buttocks, faintest over the abdomen, extremities, head and neck. The sound is audible whether the muscles are contracting or at apparent rest. Four pronounced cases in which it occurred typically are described by Sicuriani, who attributes the sound to incessant, rapid contraction of the muscle fibrils. All the subjects were neuropaths, and these sounds may aid in the diagnosis in the incipient stages of nervous disease.

125. **Danger of Protracted Organ Treatment.**—Ghedini submitted 25 animals to organ therapy, continued for two or three months. Each of the animals became weak and emaciated. He, therefore, warns that while the benefits of organ treatment have been established beyond question for certain cases, its continuous application is liable to prove injurious.

126. **Brain Organ Therapy.**—Fatal doses of strychnin were administered to animals, and while the controls all died those protected with cephalopin were saved. This is the oil extracted from brain substance, and it displays the action of an efficient organ extract. Twelve cases of epilepsy were apparently much benefited by injection of a few c.c. on alternate days. One patient has had no recurrence of her daily seizures since she began taking 2 c.c. of the cephalopin on alternate days, a month ago. It has also proved effective in other nervous affections.

Books Received.

Acknowledgment of all books received will be made in this column, and this will be deemed by us a full equivalent to those sending them. A selection from these volumes will be made for review, as dictated by their merits, or in the interests of our readers.

DISEASES OF THE GALL BLADDER AND BILE DUCTS, INCLUDING GALLSTONES. By A. W. Mayo Robson, F.R.C.S., Hunterian Professor of Surgery and Pathology, 1897, 1899 and 1903. Assisted by J. F. Dodson, M.S. (Lond.), F.R.C.S., Lately Resident Surgeon to the General Infirmary at Leeds. Third Edition. Cloth. Pp. 485. Price, $4.25 net. New York: William Wood & Co. 1904.

A REPORT ON TWO CASES OF A PECULIAR FORM OF HAND INFECTION, Due to an Organism Resembling the Koch-Weeks Bacillus. By John R. McDill, M.D., and Wm. B. Wherry, M.D., Department of the Interior. Bureau of Government Laboratories. Biological Laboratory. Paper. Pp. 20. Manila: Bureau of Public Printing. 1904.

INDEX CATALOGUE OF MEDICAL AND VETERINARY ZOOLOGY. Part 6 (Authors F to Fynney). By Ch. Wardell Stiles, Ph.D., Consulting Zoologist of Bureau of Animal Industry, and Albert Hassall, M.R.C.V.S., Veterinary Inspector, Bureau of Animal Industry. Paper. Pp. 510. Washington: Government Printing Office. 1904.

IROQUOIS THEATER FIRE, Chicago, Illinois, Wednesday Afternoon, Dec. 30, 1903. List of Victims. Compiled by John E. Traeger, Coroner, Cook County, Illinois. Paper. Pp. 12. Chicago: Henry O. Shepard Co. 1904.

REPORT ON HEMORRHAGIC SEPTICEMIA IN ANIMALS IN THE PHILIPPINE ISLANDS. By Paul G. Woolley, M.D., and J. W. Jobling, M.D. Paper. Pp. 21. Manila: Bureau of Public Printing. 1904.

THE COMPLETE ANAS OF THOMAS JEFFERSON. Edited by Franklin B. Sawvel, Ph.D. Cloth. Pp. 283. Price, $1.50. New York: The Round Table Press. 1903.

ANNUAL REPORT OF JOHN E. TRAEGER, Coroner of the County of Cook, Illinois. For the Year 1903. Paper. Pp. 13. Chicago: H. O. Shepard Co.

REPORT OF THE TRUSTEES OF THE NEWBERRY LIBRARY for the Year 1903. Paper. Pp. 28. Chicago. 1904.

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Original Articles.

THE USE OF ETHYL CHLORID AS A GENERAL ANESTHETIC IN GYNECOLOGY.

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AND
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DISCUSSION OF ANESTHETICS IN PRESENT USE.

The suggestion of a new agent for the purpose of securing general anesthesia will possibly seem unnecessary at this time, inasmuch as the agents now employed fill nearly all the indications required in anesthetic work. When we come, however, to analyze the action of these drugs, we find each of them has disadvantages which make us long for something by which these particular annoyances can be obviated. The length of time required to secure narcosis and to eliminate the drug, aside from the actual danger of the agents, make ether and chloroform unsatisfactory agents to secure anesthesia for an examination or for a short operation. The frequently prolonged nausea and vomiting associated with or following the administration of these agents for even a short time causes the patient to hesitate about undergoing the subsequent operation when they have been employed for merely diagnostic purposes. Perhaps in no department of medicine is the term anesthesia more repugnant than to the gynecologic patient; for in many instances the condition for which the patient consults the gynecologist has been induced by parturient trauma or infection, and during this time she has been anesthetized by one of our older agents, and, therefore, has learned of their annoying after-effects. Hence, if we can assure our patient that we can administer an agent free from these annoyances, the term will not have the same terrifying influence. The greater freedom from muscular action frequently renders an examination under anesthesia necessary in order to secure an accurate diagnosis on which subsequent therapeutic or surgical measures are to be based. Many will undoubtedly assert that nitrous oxid or the ethyl bromid would meet every indication for such diagnostic purposes, but they are not without disadvantage. Both act quickly and are evanescent in their effects, and the latter drug is likely to produce severe nausea. The former requires a special apparatus for its administration which is rather cumbersome to transport, and its administrator must exercise care to maintain its effects sufficiently long to permit of a prolonged examination or the performance of an operative procedure. The ethyl bromid is free from the above objections, but leaves an offensive garlicky odor on the breath which persists for two or three days.

The agent under consideration in this paper is free from these objections; indeed, so satisfactory is its action as to cause us to wonder that its salutary effects should have been so long overlooked. One probable explanation for this has been its excessive volatileness, which rendered it rather difficult to utilize and the associated expense which still renders its use unlikely in a general clinic.

CHEMISTRY OF ETHYL CHLORID.

Chemically, ethyl chlorid is one of the haloid substitution products derived from ethyl alcohol, and it is formed by the halogen element, chlorin, replacing the hydroxyl group in the alcohol. Various methods are employed in the preparation of this agent, but those most frequently used are as follows: First, by passing gaseous hydrochloric acid into a boiling solution of zinc chlorid in twice its weight of alcohol ($C_2H_5OH+HCl = C_2H_5Cl+HOH$); second, by the action of perchlorid of phosphorus on alcohol ($C_2H_5OH+PCl_3Cl_2=HCl+PCl_3OC_2H_5Cl$); third, by the action of chlorin on the hydrate of ethyl. Physically, ethyl chlorid is a clear, colorless liquid of rather pleasant odor, with an aroma somewhat similar to chloroform. It evaporates very rapidly at ordinary room temperature, and, therefore, must be kept in hermetically sealed vehicles. The specific gravity of this substance is 0.92. Its boiling point is 12.5 C. It is a highly combustible agent, and in burning emits a yellowish-green flame.

PHYSIOLOGIC ACTION.

[illegible] ction of ethyl chlorid still remains [illegible] question, though the general teaching, and that almost generally accepted, is that the influence of the agent on the circulation is at first to increase the frequency of the pulse-beats. After anesthesia is complete, however, the pulse will invariably regain its normal calmness. This primary disturbance of the circulation is undoubtedly due to nervous excitement and not to any direct influence of the drug, for, as is well known, this primary acceleration of the circulation is always found to precede the initial administration of any anesthetic. The arterial tension is, as a rule, decreased. Wood and Cerna, from their experiments with this agent on animals, found that it lowered arterial pressure during deep narcosis, and that as soon as the anesthetic was withdrawn, it regained its normal condition. Koenig, from his experiments on animals, has reached practically the same conclusions. Moreover, he found that the decrease in arterial tension was of centric origin. due to the influence of the agent on the pneumogastrics, since it disappeared after the vagi were cut.

Following the section of these nerves the arterial pressure increased and remained thus until the completion of his experiment. This observer further discovered that the pneumogastrics did not react to irritation when anesthesia was complete. Malherbe and Roubinovich carried out some experiments with Potain's sphygmomanometer in order to determine the exact influence of ethyl chlorid on the arterial pressure in man. The conclusions they reached are, in the main, in accord with those epitomized by the other investigators mentioned. Of the 24 cases examined by Malherbe and Roubinovich, arterial tension was decreased in 22, and the frequency of the pulse-beats followed equally the modifications in the degree of arterial pressure; during deep sleep diminishing and increasing and attaining finally the normal number as consciousness was restored. McCardie, from his large personal experience with this agent, also claims that the arterial tension is, as a rule, lower during the administration of ethyl chlorid, and that during deep narcosis the pulse becomes slower than normal, but usually maintains its regularity. Royer carried out certain experiments with this agent in his service at the Jefferson Medical College Hospital, and he found that its influence on the circulation was in accord with the observations of the other men mentioned. From our own personal experiments with this agent we found that in patients with a normal circulatory apparatus there was usually a slight decrease in arterial tension. There was no decided disturbance in the pulse-beat. At the beginning of the administration, however, there was a certain increase in the frequency of the pulsations, but this, of course, was due to the psychic disturbance of the patient, and not from any direct action of the drug. The respirations were generally stimulated both in frequency and depth, and from the perusal of the literature we find that this was observed by all of the investigators mentioned in this paper. A point of great importance, and one which we desire to set forth with emphasis, is that very little irritation results from the administration of ethyl chlorid on the respiratory mucous membrane. Furthermore, the distressing and often embarrassing condition of excessive secretion was scarcely ever observed from its administration. Malherbe and Roubinovich discovered in the urine of some of their patients which was normal before the anesthetic was given, the presence of albumin and bile pigments after the restoration of consciousness, but these substances disappeared in a few days. They conclude, therefore, that the kidneys and liver participate in the intoxication induced by ethyl chlorid.

SAFETY.

Regarding the safety of ethyl chlorid as a general anesthetic, from our experience we confidently believe that it is one of the safest now at the disposal of the practicing physician. McCardie asserts that it is the safest of all anesthetics except nitrous oxid, and that the death rate might be placed at one in many hundred thousand. Cumston ventures the statement that on account of the facility with which it is given and its harmlessness, an experienced assistant is not required. This assertion, however, does not seem to us justifiable. Cumston further asserts that chlorid of ethyl may be given to subjects at any age, and particularly at the two extremes of life at a time, he says, when the organism does not as yet present, or, on the other hand, has lost that vitality which is requisite to support the shock of our older anesthetics. Despite the harmless qualities of the drug, we believe that its administration or the administration of any anesthetic, should be trusted only to one skilled in the employment of such agents and trained to recognize their dangers. Seitz of Konstanz reports 16,000 cases of ethyl chlorid narcosis collected throughout the world. Among these there was but one death, and that in a very unfavorable subject. Ware has collected 11,207 cases of ethyl chlorid narcosis, and in this number one death is recorded. This fatality also occurred in a patient who exhibited many physical signs contradictory to the use of a general anesthetic. Soullier of Lyons records 8,417 cases of ethyl chlorid narcosis, and in all this number there were no symptoms induced that would condemn the employment of this agent. Lotheissen, on the other hand, asserts that statistics indicate that chlorid of ethyl stands, as regards its mortality, next to chloroform. This author asserts that death from chloroform anesthesia occurs once in 2,075 times, and from ethyl chlorid once in 2,550 times. The unfortunate result recorded in Lotheissen's series of cases occurred in a patient who manifested evidence sufficient to contraindicate the employment of any general anesthetic.

From a review of statistics and our own experience, we believe that the figures mentioned by Lotheissen relative to the chlorid of ethyl are far too high, and that his convictions regarding its safety have undoubtedly been fostered by the serious results obtained in one of his patients. The wide diversity of opinion regarding the safety of this remedy as a general anesthetic is due, we believe, to its comparative newness. In our judgment it is decidedly safer than chloroform and possibly safer than ether, and undoubtedly safer than its sister anesthetic, bromid of ethyl. This statement, too, we believe future experience will prove. Moreover, we have never observed a symptom from its use that rendered us apprehensive. Indeed, the assertion of Weissner would seem to indicate that the drug is really safer than ether. He states that in Prof. von Hacker's clinic in Innsbruck, ethyl chlorid is used whenever it does not seem safe to use ether or chloroform, as in high degrees of circulatory interruption, fatty degeneration of the heart, disease of the respiratory organs, persons enfeebled by great loss of blood, and those suffering from nervous shock. It is universally taught and accepted that the employment of any of our older anesthetics, such as ether or chloroform in patients with any of the conditions mentioned above, should be used, if at all, with anticipating caution.

ADMINISTRATION.

Ethyl chlorid was probably first used as a general anesthetic by Heyfelder, in 1848. In 1880 it was tried on animals by a committee of the British Medical Association and its use condemned, and for a time its use as a general anesthetic was abandoned. In 1895-96 Carlson and Thiesing again took it up and its use became more general, particularly in the practice of dentistry. Soullier of Lyons, in 1895, carried out clinical experiments with this agent in the hospitals at Lyons. He records 8,417 narcoses with ethyl chlorid without any direful results.

The first scientific work, however, and the first systematic employment of ethyl chlorid were probably done in 1897-98, by Ludwig and Lotheissen in Prof. von Hacker's clinic at the University of Innsbruck. Weissner later became chief of von Hacker's clinic, and carried on observations in 400 cases of ethyl chlorid narcosis. McCardie, in 1902-03, studied the value of the drug in 620 general narcoses, and he is enthusiastic in his praise of the agent, claiming that it contains all the requisites of a perfect anesthetic, and these we find are set forth by Tuttle as: 1, Safety to the patient; 2, insensibility to pain; 3, complete relaxation; 4, easy and rapid production of effect; 5, freedom from dangers and disagreeable after-effects; and, 6, simplicity of administration. Tuttle believes, too, that these facilities are nearly all inherent in ethyl chlorid.

Ethyl chlorid can be administered for the purpose of inducing general anesthesia by simply spraying it on a gauze compress, though perhaps the employment of one of the specially devised inhalers would be advantageous. One of the best inhalers now in use is the Ormsby ether inhaler devised by Hewitt. This instrument contains a movable air chamber which can be heated in hot water, and, therefore, prevent freezing and thus economize the use of the anesthetic.

Cumston recommends the inhaler devised by Tiemann & Company of New York, and in his hands it has proved very satisfactory, besides it is inexpensive. This inhaler is composed of an oval rubber cone containing a fenestrum in its roof about three cm. in diameter. Into this hole or opening, a tube five cm. in length is secured, through which the ethyl chlorid is sprayed into the cone. To prevent the anesthetic coming in contact with the patient's face several layers of sterile gauze are previously secured over the end of the tube. The same object is accomplished by inserting loosely a small plug of cotton in the lower end of the tube, with a single piece of gauze over the opening. We have employed this inhaler in our practice also, and it always gave us good results. In our experience a cone made of ordinary cardboard covered with gauze, with its base so constructed as to fit snugly over the face of the patient, has proved of good service in our hands. Several layers of gauze are secured over the opening on to which the anesthetic is to be sprayed. A rapid evaporation or escape of the anesthetic is prevented or minimized by placing a gauze pad over this. In administering ethyl chlorid for the purpose of securing general narcosis, the patient should be prepared as is done for the administration of any general anesthetic. The cone is applied tightly over the patient's face in order to prevent excessive intake of air. The patient is then instructed to breathe naturally. The agent is sprayed on to the cone more or less constantly from a tube with an opening sufficiently large to allow the rapid escape of the agent on to the cone. Should this not occur and if anesthesia is not promptly effected, two tubes should be used.

The time required for complete anesthesia is usually from one-half to two minutes, but with some persons a longer time is sometimes necessary. We have never failed to secure operative anesthesia, though in a certain number of our cases relaxation was more marked than in others. Most observers assert that complete muscular relaxation is never obtained, and this statement we believe in the main correct, though in our series of cases we noted in a few instances narcosis equivalent to complete relaxation. Lotheissen asserts that in cases of incomplete relaxation, the previous hypodermic administration of heroin would readily overcome the condition. It is asserted that excitement sometimes results from the administration of ethyl chlorid, and this condition McCardie says is due to the too free admission of air, though, at the same time, a certain amount of air must be allowed in all cases.

In our series of cases defensive disturbances were rarely noted. Thus far the teaching has been that ethyl chlorid finds its true service in the domain of minor surgery, or in that class of cases where prolonged anesthesia is not required, and many observers claim that it is of decided advantage preliminary to the administration of ether. A few men have used the drug for various major operations and report having had patients under its influence for many minutes. We ourselves have employed ethyl chlorid for almost every condition indicating the use of a general anesthetic. We have used it preliminary to the administration of ether, and heartily concur with the opinion of many men that the agent rapidly overcomes the excitation that results from the first stage of ether narcosis. Further, it undoubtedly decreases the amount of ether required, and, therefore, to a certain extent, combats the post-etherization nausea and vomiting. We have had patients under the influence of the anesthetic as long as fifty-four minutes, and under its influence have performed hysterectomy and the various combined operations on the pelvic floor and intrapelvic viscera.

USE IN GYNECOLOGY.

In gynecologic work ethyl chlorid will be especially employed for administration to allay the pain and relieve muscular contraction in abdominal pelvic examinations. Its employment will frequently permit of an accurate diagnosis in what would otherwise be an obscure case. The short time required for anesthesia, the rapidity with which the patient will recover from its effects, and the decreased tendency to nausea and vomiting, will allow its employment in office practice, with the assurance that the patient can return home without the need of prolonged attention.

The same indications will lead to its employment in all operations of minor character where prolonged anesthesia will not be required. In enfeebled patients requiring vaginal incision for pelvic drainage, it is an ideal agent, for its administration need not be begun until everything is prepared for the incision, so that the patient will be under its influence only a few minutes.

Probably its most effective employment will be as a preliminary to the administration of ether or chloroform, by which the distress and sensation of asphyxia produced by the latter agents will be avoided. A nervous woman may be brought quickly under the influence of the ethyl chlorid, and the ether or chloroform follow without the patient experiencing any of the ordinary discomfort of an anesthetic, and consequently, without a struggle. Her convalescence from the effects of the anesthetic is more rapid because she has not undergone so thorough a saturation with it.

DISADVANTAGES.

The principal disadvantages of the agent as a general anesthetic are:

1. The patient passes under and out of its influence so quickly that the administrator must be unusually expert to avoid, on the one hand, profound anesthesia, and on the other, the emergence from its effects at an important stage of the operative procedure.

2. The expense of the drug excludes its use in a general clinic, but the increased employment of this agent which must necessarily follow the general recognition of its advantages, will doubtless result in a reduction of its cost.

The Gauge of Sanitation.—The death rate of infants and young children—those under five years of age—is the true test of the sanitary conditions and of the sanitary administration of a community.—*Texas Medical News.*

THE ETIOLOGY OF TABES DORSALIS.

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Tabes dorsalis was one of the first of the diseases of the spinal cord to be recognized, and is one of the most frequent types of sclerosis which occurs in the cord; yet after more than half a century of study, there still exists a wide difference of opinion, both as to its etiology and pathology.

All our real knowledge as to its pathology may be summed up as follows: That it is a degeneration of the posterior columns of the spinal cord, or of the peripheral spinal sensory nerves, or both; and that this process involves primarily the posterior spinal ganglia or analogous neurons, and later involves the cord and peripheral nerves. But how these changes are caused, pathology has as yet offered us no explanation, and we must still rely for an explanation on the facts furnished by clinical observation.

Tabes is a disease most common in young and middle life, but its usual long and slow development often causes it to remain unrecognized for years, and thus the real cause may escape detection and the disease be assigned to some intervening factor. In a recent paper by Bramwell, who has analyzed 155 cases, the numbers, according to the age of onset, were, in the third decade, 79; fourth, 77; fifth, 35; sixth, 18; and seventh, 2. In 565 cases collected by Bonar, Thomas, Riley and Bramwell, there were in the second decade, 12.9 per cent.; third, 43.9 per cent.; fourth, 31.4 per cent.; and fifth, 11.6 per cent. In Fulton's 55 reported cases, the numbers according to decades were, third, 5; fourth, 16; fifth, 19; sixth, 7; and seventh, 2. A record of 103 cases of my own arranged according to the age of invasion, shows for the second decade, 1; third, 3; fourth, 47; fifth, 35; sixth, 16; and seventh, 1.

These figures, then, support the contention stated and are also held by some authorities to indicate that, by occurring at a time of life when the resisting powers are beginning to be impaired while the activity is undiminished, it is a disease of lowered vitality. This latter contention is also supported by the fact that the disease is much more frequent in males and those who live in cities. In my own cases, only four lived in the country, and only six were women.

The majority of writers assign numerous causes as the producing factors for tabes, such as syphilis, injuries to the cord and peripheral nerves, overexertion, exposure to cold and wet, acute rheumatism, typhoid and typhus fevers, diphtheria, pneumonia, influenza, alcoholism, sexual excess, severe hemorrhages, prolonged labors, and Fulton states that a number of his cases suffered for months or years from chronic gastro-intestinal disorders before the development of the tabes. Besides those cases for which we can find a recognized cause, we not infrequently see cases for which we are unable to assign an etiology. The relative frequency of these assigned causes as shown by Bramwell's reported cases, was, syphilis, 72.3 per cent.; alcoholism, 6.4 per cent.; injuries and exposures, each, 3.8 per cent.; mental worry, overexertion, diphtheria and scarlet fever, each, 1.3 per cent. In Fulton's cases, the frequency was, syphilis, 42 per cent.; alcoholism, 22.1 per cent.; influenza, 20.3 per cent., and typhoid fever and injuries to the spine, each, 7.4 per cent. In my own cases, the assigned causes were, syphilis, 59.9 per cent.; alcoholism, 5.7 per cent.; secondary to multiple neuritis, 4.3 per cent.; injuries to the spine, 4.3 per cent.; injuries to the lower limbs, 2.9 per cent.; blows on the back, 4.3 per cent.; rheumatism, 1.4 per cent.; sexual excess, 1.4 per cent.; diphtheria, 4.3 per cent.; and unknown, 11.5 per cent.

It is evident, then, that tabes is a disease which may either follow a large number of different causes, or that these assigned causes are not the real exciting causes; and that the tabes existed before the occurrence of the assigned cause and was aggravated by it, or attention was first directed to the tabes by the intercurrent disease. This situation is further complicated by the fact that it is impossible, either in private or hospital practice, to obtain clinical histories on which to base an opinion which meets with the requirements of a reasonable certainty. The only solution of this problem at the present time appears to be to take up each assigned cause and study the method by which it might produce the disease.

Led by the high percentage assigned to syphilis, it seemed at one time as if the majority of the profession had adopted the theory that tabes was simply a sequela of syphilis; and in those cases in which the occurrence of syphilis could not be proved, it was to be accounted for either on the theory that the infection was so slight that the symptoms escaped recognition, or on the grounds of heredity. This theory is, however, combated on the following grounds: That syphilis is common among the Japanese and negroes, while tabes is rare; that the tabes does not usually appear until long after all the manifestations of the syphilis have disappeared. (In my own cases this period averaged eight years and the extremes varied from two to thirty-three years. In Bramwell's cases this period was more than ten years in 59.5 per cent.) That the number of syphilitics is large, while the number of them who develop tabes is extremely small. In Leyden's 108 tabetic cases, only 28 were proved to be syphilitic, a percentage not above non-tabetic cases; and Lewin found no tabes in 800 syphilitic females, and Glueb found no tabes in 3,000 consecutive cases of syphilis. Beside these arguments against a purely syphilitic origin of tabes, it is further shown that antisyphilitic treatment has no effect in tabes; that the lesion is as degenerative in the non-syphilitic cases as in the syphilitic; that the disease is not a syphilitic one in its pathologic sense, and that all the morbid changes found in tabes also occur in other non-syphilitic diseases. The conflict of opinions of writers is thus shown in their works as follows: "No syphilis, no tabes" (Ferrier); "tabes is a syphilitic process" (Weigert); "it can not be said that tabes never develops unless the patient has had syphilis" (Bailey); "that syphilis is not the only cause" (Gowers); "it is not a syphilitic process or a sequela of syphilis" (Peterson and Burr); "that syphilis is the most important cause, but distinctly not the only cause" (Bramwell); and "that less importance is now being given to syphilis and more attention to the rôle of other poisons" (Fulton).

It is undisputed, then, that syphilis is a cause of tabes, but the method by which it acts has not yet been explained. Syphilis is supposed to be a germ disease, but whether it is the direct action of the toxins on the neurons of the posterior columns, or some secondary change in the metabolism of the body which acts in a similar manner or simply a lowered vitality of these parts or defective blood supply from vascular disease, is not yet in evidence. That it is due to the direct action of any syphilitic toxin seems impossible when we take into consideration the long period which elapses between the disappearance of all the other manifestations of the infection and the earliest signs of the tabes. Its action, then, if it is a cause, is very different from any other member of its class. The second contention is not yet based on any evidence of the existence of such a body, nor do either of these explanations offer any reason why the posterior columns of the cord are thus involved. A more reasonable explanation can be found in the fact that the posterior columns of the cord are of all the parts of the central nervous system the most poorly supplied with blood, and its venous supply is such as to tend markedly to retard the return of the blood; and thus any cause which tends to diminish either the quantity, quality or pressure of the blood supply to the cord would show its most marked action on the nutrition of the posterior neurons. This seems to be the most logical explanation of the relationship of syphilis and tabes, from its tendency to cause arterial disease.

When we consider the relationship of trauma and tabes, we again find ourselves confronted with a wide difference of opinion among writers. Bailey states "that it is improbable that injury or shock stand in any direct causal relationship to the disease." Prince, "that there is no published case which meets with the requirements of certainty." Gowers, "that one of the causes which can sometimes be clearly traced is injury." Golebiewski, "that the exciting trauma in tabes may act centrally or peripherally. The central injuries are hemorrhage into the cord, concussion or contusion; and the peripheral injuries are sprains, fractures or dislocations of the spine and contusions of the lower extremities." Excluding, then, those cases in which attention was first directed to an already existing tabes by some injury, let us examine the methods by which trauma might cause the disease. It is an established fact that disease of the peripheral portion of the spinal neurons may at times ascend to the columns and gray matter of the cord; and thus disease of the sensory fibers which ascends to the posterior ganglia may, by causing disease in them, cause similar diseased conditions of their central branch and thus ascend to the posterior columns of the cord. It will be remembered that the majority of the fibers of the posterior tracts of the spinal cord are but the central neuro-axon of the posterior spinal ganglia and depend on them for their nutrition. In this way, then, it must be admitted that tabes might be produced. Besides this method, and more frequently, the cord or its membranes may be injured by fracture, dislocation, undue bending of the spine or blows on the back, producing concussion, contusion or hemorrhage into the cord. This may be directly the cause of both the gray matter or tracts of the cord, or a chronic meningitis may occur ending in thickening of the membrane, compression of the cord and peripheral nerves with secondary degenerative changes.

In support of the theory of this method of the production of tabes, the histories of the following cases are of interest:

Case 1.—Male, aged 43, seen in Kings County Hospital. Four years before admission he fell down a flight of stairs, injuring his right knee. Since that time he has had loss of power in the right leg and thigh, with severe pain and hyperesthesia. Eighteen months before admission he began to notice unsteadiness in walking, numbness of his feet, and attacks of diplopia. Examination showed atrophy of the right thigh and leg, with the classical signs of tabes.

Case 2.—Female, aged 53, seen in Kings County Hospital. Ten years before admission she fell and received a contused wound of the right knee. Since then she has suffered from severe pains in the right thigh and leg; one year before, they occurred on the left side, and she noticed at that time difficulty in walking. Examination showed a large scar on the right knee and a well-developed tabes.

Case 3.—Male, aged 43, seen in consultation with Dr. W. Kinne. Two years before he had received a severe blow on the back which rendered him paraplegic and anesthetic below the third ribs with both urinary and fecal incontinence. He gradually improved so that he was able to walk with a cane. Two days before he was seen, he developed severe lightning pains in his body and limbs. Examination showed a well-marked tabes.

Case 4.—Male, aged 53, seen with Dr. L. S. Pilcher. Two years before he had received a severe blow on the back. This was followed by severe pains radiating from the spine into the hips and thighs, numbness of the feet, and retention of urine. Examination showed a forward displacement of the last two dorsal and first lumbar vertebræ, with a well-marked tabes.

Case 5.—Male, aged 38, seen in Kings County Hospital. Five years before he was in a trolley collision and received a fracture of two ribs and a contusion over the lumbar spine. Since that time he has suffered from spinal pain and rigidity, and two years later he developed severe pains in the chest and abdomen, often associated with vomiting. Examination showed a marked thickening about the lumbar vertebræ, spasm of the lumbar spinal muscles, producing spinal rigidity, and a well-marked tabes.

Case 6.—Male, aged 75, seen in consultation with Dr. C. D. Kevin. Always in good health until fifteen years before, when a cellar grating fell on his back. Since then he has suffered from severe pains in his back, radiating into his hips and lower limbs; numbness of his feet, and increasing difficulty in walking. Examination showed a well-marked tabes.

Case 7.—Male, aged 33, seen in Kings County Hospital. Seven years before he fell from a ladder and received a contusion over the lumbar spine. One year after he began to notice difficulty in walking and girdle sensations. Examination showed a well-developed tabes.

In none of the cases were we able to obtain from the family history or the personal history, or from the physical examination of the patient, any evidence of syphilis or other producing causes.

Alcoholism has been, next to syphilis, the most frequent assigned cause for tabes in my own cases. All had been addicted to the excessive use of the drug for years, and showed the well-known physical changes produced by this agent. In all there was a history of a peripheral neuritis, lasting a year or more before the development of the tabes. Of this class the following history is typical:

Case 8.—Male, aged 30, seen in Kings County Hospital. He had drank to excess for years, and had been treated in the hospital six months before his present admission for multiple neuritis, and discharged as cured. Present condition had been of three weeks' duration. Examination showed a partial paraplegia, most marked in the extensors, with foot drop, absence of knee-jerks, anesthesia dolorosa of the feet and legs, delayed sensations, and pain on pressure over the nerve trunks. He recovered except for severe pains in his lower limbs, and at the end of three years presented the ordinary clinical picture of tabes.

The explanation of this alleged etiologic relationship of alcohol to tabes is assumed to be found in the well-known toxic effect of alcohol on the nervous system, and its also well-known power to produce vascular disease. Besides this, alcohol also appears to have a selective action on the co-ordinating structures, as is well shown, not only in acute intoxication, but also in those cases which bear the name of pseudo-tabes or alcoholic tabes.

The method by which exposure to cold and wet might act as a producing cause for tabes is no more clear than the method by which it acts to produce other diseased conditions. The only case of this kind which has come under my observation was one in which the exposure first produced a neuritis which seemed to secondarily involve the cord.

Case 9.—Male, aged 67, a pastry cook, seen in Kings County Hospital. He gave history of two previous attacks, each of which occurred after exposure when overheated. The first occurred nineteen years before, and involved both legs, and the second one occurred one year later and also involved the arms. The present attack was of nine months' duration. Examination showed a well-marked quadriplegia, with foot and wrist drop, diminished knee-jerks, anesthesia dolorosa of the extremities, tenderness over the nerve trunks, and edema of the feet. The condition slowly improved, but at the same time he developed lightning pains, attacks of diplopia, and occasional retention of urine. By the end of three years he presented the ordinary picture of tabes, of which he died, and which diagnosis was confirmed by an autopsy.

The remaining alleged etiologic factors may be divided into three groups: 1, Toxins formed in the body as the result of some contagious disease; 2, toxins formed as a result of perverted metabolism; and 3, those factors which act by lowering the general vitality.

The first two groups may be considered together, for in both we are dealing with the relationship of a toxin to the nervous system. If we admit syphilis and alcohol as causes for tabes, it appears that we are now dealing with similar poisons, and that there is no substantial grounds for denial that other similar poisons might not act in the same manner. All these substances are known to be able to produce degeneration of the peripheral neurons, which may secondarily involve the cord, and also degeneration of the arteries. This contention is further supported by a recently reported case of Herzog, in which a tabetic condition followed a myelitis secondary to gonorrhea; and if the observations of Fulton as to the preceding digestive disturbances are correct, it would account for some of the cases in which we are unable to assign an etiologic factor. The etiologic relationship of the factor of the third group, such as sexual excess, prolonged labors and excessive hemorrhages, can only be explained on the theory that any cause in which the vitality is sufficiently reduced to produce degeneration of the neurons would, from the anatomic facts already cited, first show themselves in the posterior columns of the cord. This explanation, however, does not account for the fact that while these causes are very common, tabes ascribed to these causes is exceedingly rare.

To sum up, then, it appears from our present knowledge of the etiology of tabes dorsalis, that the disease can be as clearly attributed to other causes as to syphilis.

The "Goryous" Fourth.—Is it not about time to ask what, if anything, has been done, or will be done, to prevent the destruction of another four and a half hundred children following the next glorious and gory Fourth? When the extent of last year's statistics became impressed on the public mind, one heard some talk of legislation to suppress the toy pistol, and it began to look as if some definite steps would be promptly taken in this urgently needed reform. What has been done?—*Cleveland Medical Journal.*

A STUDY OF THE ANATOMY, PATHOLOGY AND ETIOLOGY OF SCOLIOSIS,

ALSO PRESENTING THE SCOLIOTONE, AN APPARATUS FOR ELONGATING AND LESSENING THE ROTATION OF THE SPINE IN LATERAL CURVATURE.*

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In search for more definite etiologic factors and further pathologic conditions in scoliosis, I have found it necessary to make a thorough analysis of the spine, the various motions which it allows, and the physiologic relation which it bears to the pelvis, ribs and various muscles acting directly or indirectly on it. I also wish to say something in regard to treatment.

A STUDY OF THE ANATOMY OF THE SPINE.

The spine is a flexible column which tapers in size from below upward. In the cervical region the bodies are broader from side to side and have a tendency to limit the lateral as compared with the anteroposterior motion. Their superior and inferior surfaces are concavo-convex, and, of course, favor the motions in flexion and extension, and to a less extent from side to side, but have a tendency to limit rotation.

The articular processes in this region are oblique, and tend to permit flexion and extension and to restrict rotation; indeed, rotation can not take place without lateral bending, the greater part of all motions of the head occurring at the occipito-atlantal and atlanto-axial articulations. All of the processes in this region, both transverse and spinous, are short, which, of course, lessens the amount of leverage for rotation.

In the dorsal region the lateral and anteroposterior diameters of the bodies are about equal, their superior and inferior surfaces are flat, and have a tendency to limit flexion and extension, but favor rotation. The bodies being heart-shaped, favor oblique bending, especially as the apices of the heart-shaped bodies are forward. The articular processes are vertical, with the superior articular facets directed backward and outward, while the inferior look forward and inward; and this has a tendency also to limit flexion and extension, but to favor rotation. The spinous processes, being long and oblique and overlapping each other, limit extension, and, as they are close to the center of motion, favor rotation. The transverse processes are longer and directed outward and backward in this region, which circumstances tend greatly to favor rotation and to limit flexion and extension.

In the lumbar region the bodies are very large, and their transverse are greater than their anteroposterior diameters; this limits lateral motion more than flexion and extension, and also limits rotation. Their upper and lower surfaces are broad and flat, restricting flexion, extension and rotation. Their articular processes are vertical, and so arranged that the superior articular processes of one vertebra clasp laterally the inferior processes of the vertebra above it, making flexion and extension easy and rotation difficult. The spinous and transverse processes here are shorter than those in the dorsal region and their leverage for rotation less.

To sum up the result of this analysis, we see that the osteology in the cervical region is most conducive to flexion and extension; in the dorsal region, to rotation and lateral oblique bending, and in the lumbar region, to flexion and extension.

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* Read before the American Orthopedic Association.

Now, in the dorsal region, in addition to the favorable conditions already named for rotation and lateral oblique bending, we have a most powerful set of levers, the ribs, which, through ligamentous attachments to the bodies and transverse processes of the vertebræ to the extent of one to two inches, according to the individual's size, when pulled on asymmetrically, may cause rotation and lateral oblique bending of the spinal column.

Now, while there are movable articulations between the ribs and dorsal vertebræ, their motion is limited, and when that limit is reached, they begin to act on the spine as rotators and lateral oblique benders in one-sided muscular action.

The costal cartilages being elastic and articulating with the sternum, do not limit asymmetrical positions and distortions.

The time of complete ossification of the vertebræ is not reached until the twenty-fifth or thirtieth year. The cartilaginous plates on their upper and lower surfaces do not begin to ossify until the twenty-first year, so that a constant rotation and a lateral oblique bending could readily change their shape.

In the pelvis the Y-shaped cartilages between the components of the ossa innominata begin to ossify as late as the thirteenth or fourteenth year, but the ossification of the ossa innominata is not complete until the twenty-fifth year. The sacral vertebræ unite between the eighteenth and twenty-fifth years. The sacro-iliac joints and symphysis pubis allow more play in childhood than in adult life.

Thus it will be seen how easily the pelvis can be distorted in growing persons, if faulty attitudes and irregular ossification from ill health, trauma, etc., are brought to bear.

On examination of the spine with the ligaments intact, one can easily see that the vertebral bodies are held together on all sides by a layer of inelastic ligaments, consequently no stretching of the intervertebral discs is possible, although unequal compression at any point may readily take place when force is exerted other than through the weight-bearing center. This inelastic ligamentous layer is reinforced to form the anterior and posterior common ligaments.

The elastic intervertebral discs of concentric vertical layers (and of heart shape in the dorsal region) favor compression, lateral oblique bending and rotation. The ribs being long, thin and naturally twisted, can be readily distorted by a continued disturbance of the muscular equilibrium of the trunk.

Each of the muscles of the abdomen, including the external and internal oblique, transversalis and recti, has partial attachment at one end to three or more of the eight lower ribs or their cartilages and at the other end to the pelvis. The first three are partially attached to the crest of the ilium, and with the recti are also partially attached to the os pubis; especially are their muscular portions attached to the iliac crest.

The external oblique, being the largest muscle of this group, having the most extensive bony attachment, which is the farthest from the center of the body and considering the direction in which it pulls, seems to be the most powerful for rotating and bending the spine. I think it never acts entirely independently of the muscles of the same or of the opposite side. This muscle is the only one of this group that is attached to the ribs proper, all of the others being attached to the costal cartilages. (The seven lowest costal cartilages are much longer than those higher up, and thus are capable of being more greatly distorted.)

As to the muscles of the back, I think, from my study of scoliosis, that they have been unjustly accused in the etiology of lateral curvature. The first and second layers are to support and control the movements of the shoulders. The other layers, except the iliocostalis and quadratus lumborum, are too close to the spine to have any appreciable power as rotators or even lateral benders, and they seem to be principally for erection of the spine.

PATHOLOGY.

Beely says: "We may consider the bones of the bodies as atrophied on the concave side and hypertrophied on the convex, but at the same time we must not forget that the atrophy in the vertical diameter is accompanied by a hypertrophy in the horizontal, and vice versa." From his description this malformation looks as if it must have taken place before complete ossification of the bodies. To this Bradford adds adaptive shortening of the ligaments and fascia of the spine.

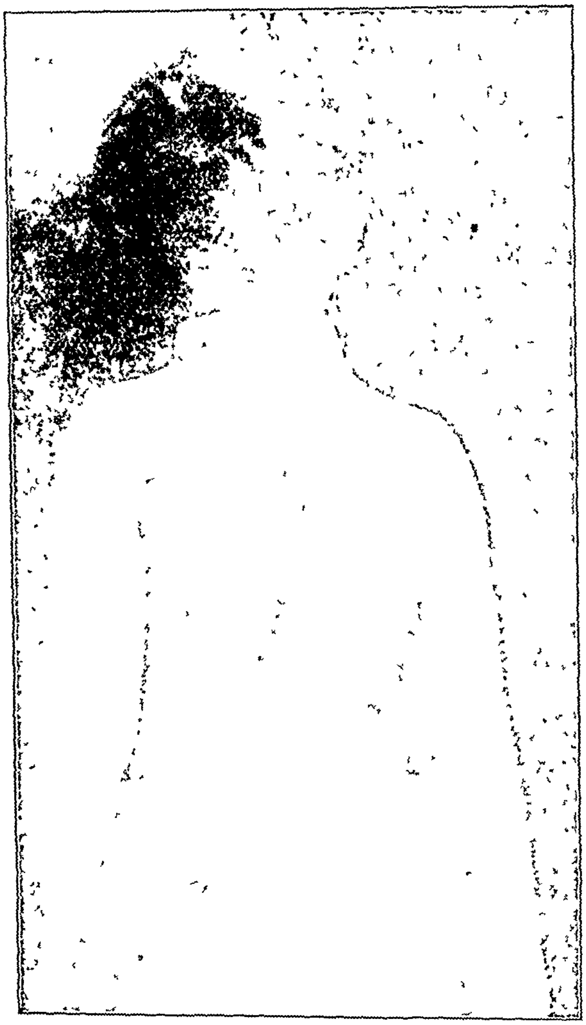

Fig 1—Patient showing scoliosis, rotation, lordosis and round shoulders

In addition to the wedge-shaped vertebral bodies and the contracted ligaments and fasciæ usually described by writers, I find that there is a distortion of the pelvis, the ribs and an inequality of the muscles of the abdomen. On the side of the concavity, the ribs are straighter at the posterior angles, more acutely curved anteriorly and are directed more obliquely downward than normal, while on the side of convexity there is the opposite condition, e. g., a more acute posterior angle, a straighter anterior extremity and a more horizontal direction of the ribs.

The ilium on the side of the concavity is tilted more forward, downward and outward than normal, while on the opposite side the ilium is more vertical and its crests more horizontal.

The abdominal muscles on the side of the concavity are longer and more tense, while on the convex side these muscles are shorter and flabby. The iliocostalis and the quadratus lumborum also seem shorter and more tense on the concave side of severe scoliosis, and the normal curves of the spine are increased.

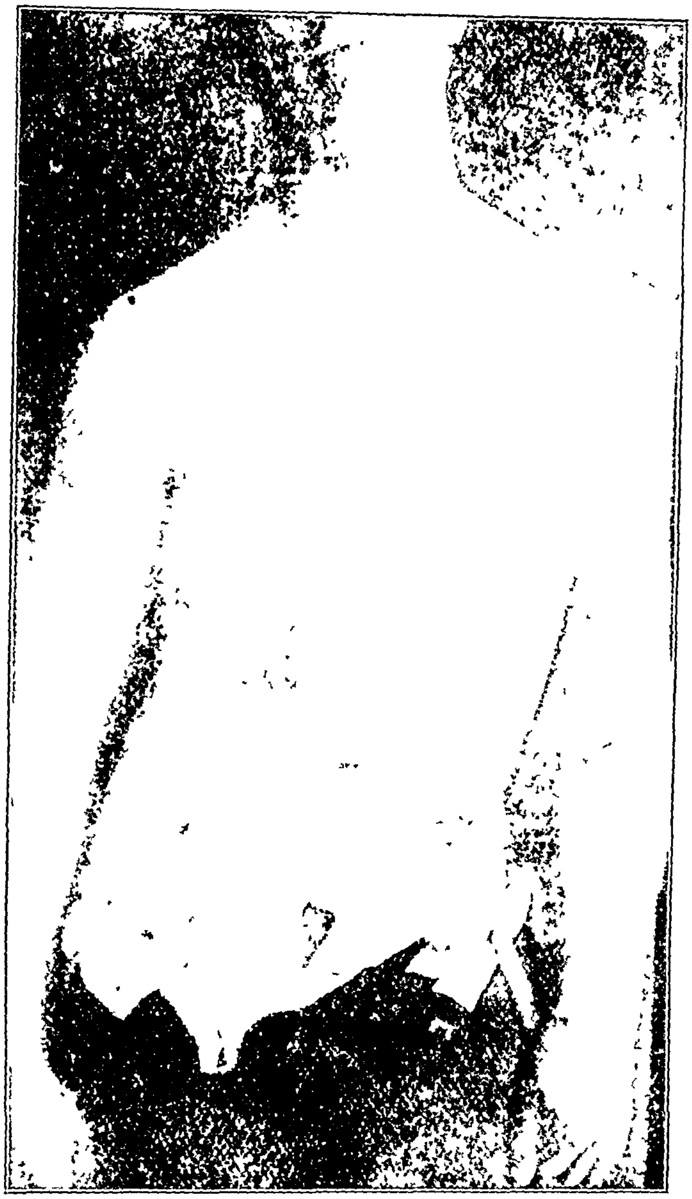

Fig. 2.—Left rotary lateral curvature in a normal individual produced chiefly by contraction of the right abdominal muscles.

Scudder has demonstrated that scoliotics are not up to the average in strength. This is easily explained when we analyze the existing conditions and see that the burden of supporting the spine is thrown mostly on one set of muscles, be they partly on one side or partly on the other. This weakened condition gives rise to the marked lordosis and stoop-shoulder (Fig. 1) accompanying these cases, the deformities being the result of the effort to maintain the equilibrium.

In the review of the literature on lateral curvature, I find a failure on the part of most writers to mention the distortion of the pelvis and ribs and the unequal length of the abdominal muscles on the two sides. McKenzie,[1] however, reports the case of a scoliotic girl, in which the right iliac crest was one inch higher than the left, and in which the left ilium was normally developed, while the right approached more nearly the vertical as in the male. These facts he attributed to the asymmetry in the development of the pelvis.

In examining the pelves of all the cases of scoliosis that have recently come under my observation, there seemed to be always an enlargement of one side. To prove this asymmetry of the bony pelvis, I made certain measurements. With the trunk bared, the shoes removed and the patient standing as nearly correctly as possible and without any undue exertion, measurements are taken as follows: 1. Between the anterior and posterior spinous processes of the ilium. 2. From the anterior superior spinous processes to the floor. 3. From the tip of the great trochanter to the floor. 4. From the anterior superior spinous processes to the internal malleoli. 5. Along Nélaton's line. 6. The shortest distance between crests of the ilia and the ribs on each side.

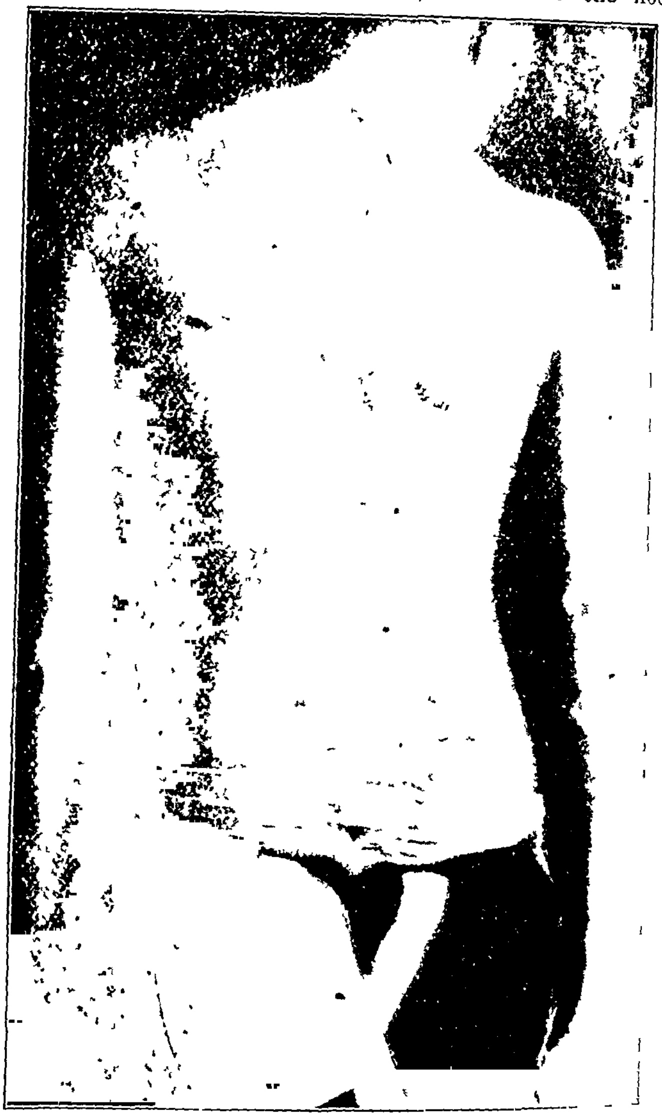

Fig. 3—Same individual, back view, showing increased obliquity of ribs on concave side of curve, also the narrowness of that side of the back

From these measurements I have found that the distance between the anterior and the posterior superior spines is about equal on the two sides; that the anterior superior spine was from one-half to three-quarters of an inch higher on the convex side when the legs are equal in length or when the leg is longer on the side of the convexity (as measured from the floor); that the distances from the anterior superior spines to the floor are nearer equal when the leg on the side of the concavity is longer; that it is impossible to get the correct length of the leg by measuring from the anterior superior spine to the internal malleoli, for they often measure the same between these points, when there is a considerable actual difference as measured from the great trochanter to the floor; that the trochanters are usually on Nélaton's line, and that the ribs are closer to the crest of the ilium on the side of the convexity.

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[1] Trans of the American Orthopedic Assn, vol vii, p 343

ETIOLOGY.

Guerin claimed that scoliosis was produced by the active muscular contractions on the concave sides. Malgaigne taught that lax ligaments and weakened muscles on the convex side formed the predisposing causes. Bernard Roth thinks that the chief factors are weakness of the spinal muscles and long-continued standing or sitting in the relaxed or stooping positions. He has observed an inherited weakness of the muscles and ligaments, associated probably with excessive softening of the bone. He writes: "Anything which weakens the muscular system tends to produce lateral curvature."

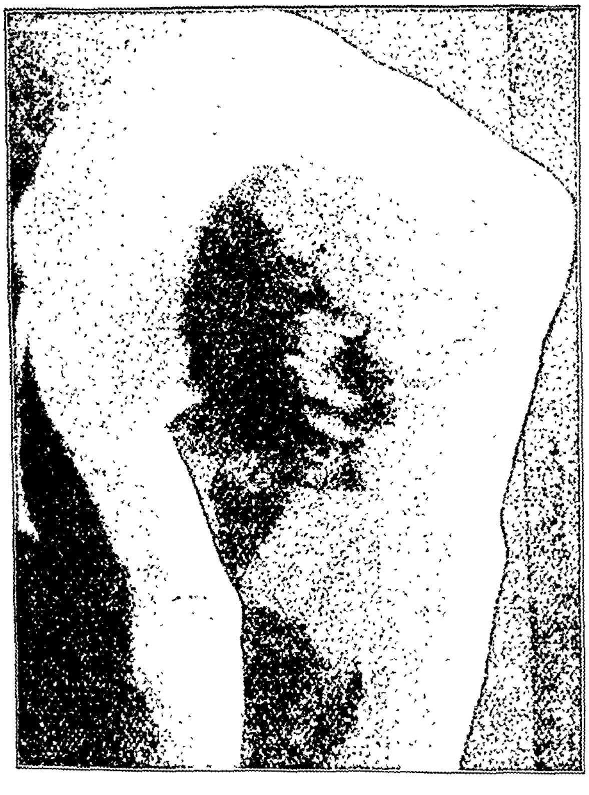

Fig. 4.—Same individual producing curvature and rotation in the forward-bending position by contraction of same muscles as in Figures 2 and 3.

Adams believed that, in the early stages of lateral curvature, spinal muscles on both sides are, as a general rule, decidedly passive, but that as the curvature advances the muscles on the convexity are called into increased action, and serve the purpose of limiting the extent and preventing the increase of the spinal curvature.

L. A. Sayre believed that rotary lateral curvature depends entirely on spinal muscular contraction. The spinal column, he says, is held in its normal upright position by the action of the muscles situated on either side of it, and which should exactly balance each other. If for any reason one set of muscles overcomes those on the opposite sides, the spine yields and a curve is produced with its concavity toward the side on which the stronger set of muscles is situated. Drs. Sayre and Adams differ in placing the strong muscles on opposite sides of the body. Schreiber believes that, in early stages of scoliosis, there are changes in the muscles, the muscular changes being due to long-continued stretching and disuse.

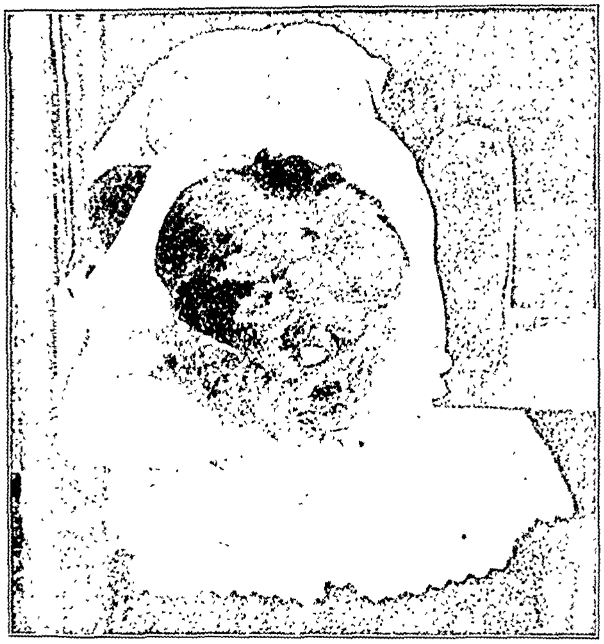

Fig. 5.—Resting on trestles; lordosis and round shoulder obliterated, back flattened, rotation and curve shown.

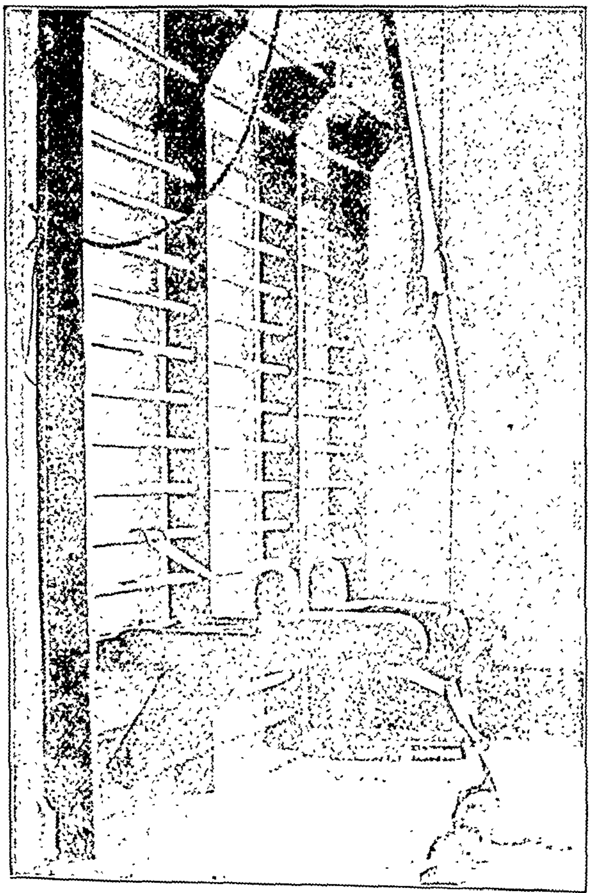

Fig. 6.—Scoliotone attached to rib stool.

Eulenberg holds that slight continuous muscular action is necessary for the maintenance of the upright position of the body; that this action must be equal on either side of the spine; that the most frequent cause of deviations of the spine is a disturbance of the power of the spinal muscle; that by frequently repeated passive torsion, necessary in assuming faulty positions, gradually the trunk muscles are weakened.

Lorenz sums up his opinion by the statement that anatomically, pathologically and clinically there is no foundation for a theory of a disturbed muscular antagonism, but that there is an element of general muscular weakness present in cases of lateral curvature, pure and simple, as has hitherto been assumed.

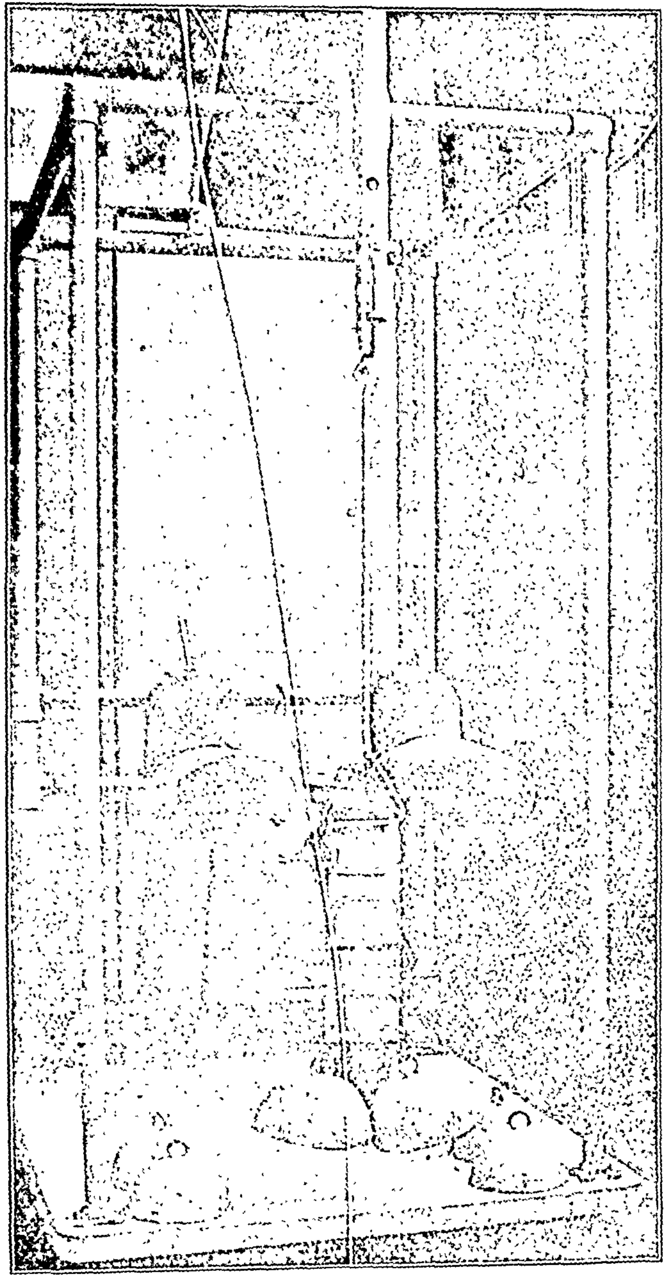

Fig. 7.—Scoliotone attached to gaspipe frame.

From my studies I am forced to hold the view that the distorted pelvis is the starting point of all cases (except those following paralysis, empyema and those accompanying Potts' disease); whether due to sitting or standing in faulty attitudes during the growing period before the bones have matured or while in a rachitic condition; unequal or irregular ossification; difference in the length of the legs caused by coxalgia, coxavara, congenital dislocation of the hip, acute inflammations, flat feet, etc.; that this is immediately followed by unequal action of the muscles of the abdomen (Fig. 2), so that those on the side, in which we find the anterior superior spine the lower, are put on the stretch, and hence act more forcibly in pulling the ribs downward, forward and straightening their angles (Fig. 3). The ribs in turn, through their long leverage on the spine, produce a dorsal concavity in it, and a rotation forward toward the same side.

On the opposite side, in which the anterior superior spine and the ribs are closer together, the abdominal muscles can not act efficiently and the ribs become more horizontal and curved at their angles (Fig. 4) and allow the bodies of vertebræ to rotate toward the convex side.

It is impossible at this time to present the full treatment antagonistic to these conditions, but I will mention a few of the most important points. Should there be an inequality in the length of the legs (as shown by the above measurements) they should be equalized, either by operation or mechanically, according to the cause. The patient should be imbued with the importance of assuming correct attitudes. Then we should establish a treatment by gymnastic exercises, jackets made over corrected casts and forcible machine correction that will tend to overcome the distorted pelvis, stretch and strengthen the weakened and shortened abdominal muscles, which further enables us to correct the distorted ribs, lordosis, stoop-shoulders, rotation and curves.

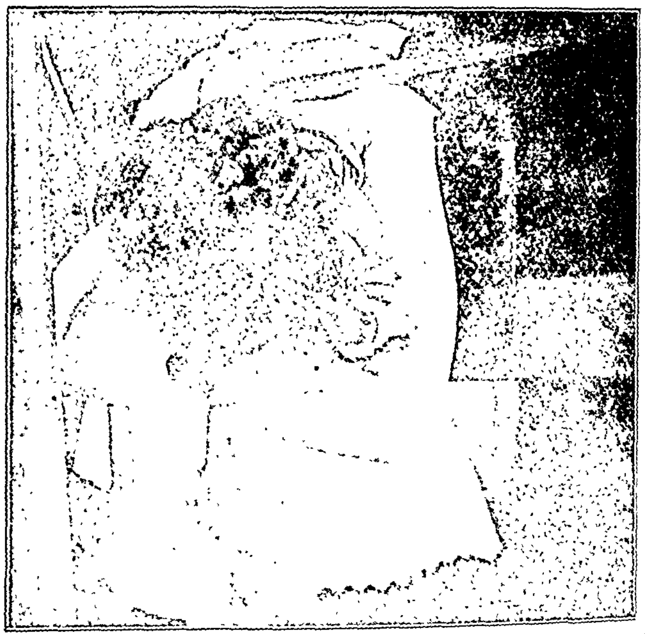

Fig. 8.—Rotation and curve corrected by application of weighted strap.

In conclusion, I wish to present the forcible correction machine, which I have called the scoliotone. This consists of two padded adjustable trestles, on which the upper thorax and pelvis are supported, with the legs at right angles to the body (Fig. 5). By these means we in a degree overcome the lordosis and round shoulders. On the end of each trestle is a padded upright, which causes counter-pressure against the axilla and the pelvis when the weights are applied. A strap armed with hooks to hold weights passes over the convexity, being made fast to the machine on the side of the concavity of the curve. This attachment of the strap to the machine is so accomplished by hooks that it may be adjusted by sliding along on a rod, so as to pull against the greatest angle of the deformity; and in addition, the rod to which it is attached may be lowered or raised, depending on whether we desire to act more on the rotation or curve.

This machine differs from Beely's in that it has fixed supports for the thorax and pelvis, while in his machine the patient rests on the feet and elbows.

This machine may be attached to the ordinary rib-stool (Fig. 6), or may have a quadrangular frame of gas-pipe to support it (Fig. 7). The weights are lifted by a lever, and the amount of weight varies according to the tolerance or resistance met in the individual cases. Patients can remain in this machine for a more prolonged period than in the majority of corrective appliances, and for the past eight months I have found it a most helpful aid in the treatment of this class of cases. It overcomes lordosis, straightens the spine antero-posteriorly from end to end, strengthens the abdominal muscles, and by means of the weighted strap tends to overcome the rotation and lateral deviation (Fig. 8).

A STUDY OF GONOCOCCUS METASTASIS; WITH REPORT OF A CASE.

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Gonorrhea, as the term is ordinarily understood, is usually thought of as an affection of the urethra, or at most as a urethritis complicated by affection of the eye or joints, but the possibility of its being complicated by metastatic abscesses in various other parts of the body is not so generally kept in mind. It has only been within the last half century that practitioners as a whole have recognized the connection which exists between gonorrheal infection of the urethra and certain joint affections, and a thorough understanding of the nature of this connection has been possible for a much less time. It is generally admitted that Selle and Swediaur[1] were the first to recognize in the coincident urethritis the cause of what is now known as gonorrheal arthritis. Swediaur describes this complication of gonorrhea in his work entitled "Practical Observations on the More Obstinate Venereal Complaints," which appeared in London in 1784, reporting six or eight cases; and also in a treatise on syphilis, published in 1801.

According to John Elliottson,[2] Sir Astley Cooper, as early as 1806, gave notice of the fact that gonorrhea may be followed by painful disease of the joints. In his article on "Urethral Rheumatism and Ophthalmia," above referred to, Elliottson says: "I can remember the time when the most of the medical profession denied the occurrence of gonorrheal rheumatism, saying that a person with gonorrhea might, like any other, have rheumatism accidentally, or that a rheumatic patient might catch gonorrhea. My first knowledge of the occurrence of the disease was obtained from Sir Astley Cooper's lectures, which were delivered at St. Thomas Hospital in 1806-7 and 1807-8. How many years previously he had mentioned or seen it, I can not say."

In 1879, however, the discovery of the gonococcus by Neisser, and the observations made on it by Baumm, cleared up the question of the etiology of gonorrhea, and opened up new fields for investigation. Practitioners became divided into several schools as regards the question of gonorrheal rheumatism and gonorrheal metastasis in general. Some believed that the cause of the gonorrheal arthritis lies in the presence of the gonococcus itself in the affected joint, while others held that the arthritis, though due to the gonorrheal infection, was the result of the absorption of its toxins from the urethra. Still others asserted that the urethral lesion simply offered a port of entrance through which other pyogenic organisms could invade the body and so reach the joints or tendon sheaths. It was not long, however, before the gonococcus itself was discovered in the synovial fluid and membrane of affected joints by Petrone, Neisser, Long, Bordoni, Kamerer and Affreduzzi.

Attempts have been made at various times, notably by the earlier workers, to produce abscesses and other lesions by injections of pure cultures of the gonococcus, but with little or no success.

The writers have been able to find reported in the literature the following cases of suppurative lesions occurring during the course of gonorrhea, other than those in the urethra, in which attempts have been made to demonstrate the presence of the gonococcus as the exciting cause.

Smirnoff[3] found large numbers of gonococci in fluid obtained by puncturing an affected joint during an attack of gonorrhea. Sonnenburg[4] reported a case of caries of the hip occurring in the course of gonorrhea, in which gonococci were found on resection of the joint. Bockhart,[5] in a suppurating bubo and a periurethral abscess occurring during the course of a gonorrhea, found no gonococci, but the *Staphylococcus pyogenes aureus*. In another case he found gonococci in the pus of a kidney abscess which complicated a severe gonorrhea. Sahli[6] was able to demonstrate typical gonococci in pus corpuscles from a large abscess in the neighborhood of the knee joint.

Weichselbaum[7] found the *Streptococcus pyogenes* on the valvular vegetations in the heart of a 25-year-old man who had died from ulcerative endocarditis three weeks after the contraction of a severe gonorrhea. He also found some organisms on the valve flaps resembling in some particulars the gonococcus, although not grouped in the same way, and staining well with Gram's.

Haab[8] reports a case of a patient suffering from a severe general infection, with effusions in the knee and elbow joint and abscesses in the left axilla, and who had lost an eye from gonorrhea. In the abscess in the armpit there were found staphylococci but no gonococci.

Guyon and Janet[9] punctured the knee joint in three cases of gonorrheal arthritis, and in the seropurulent fluid were unable to find any micro-organisms either by the microscope or by various culture tests. They believed, therefore, that these cases were instances of the action of ptomains produced as a result of the growth of the gonococcus in the urethra.

In 1893, Lang and Paltauf[10] reported a case in which an abscess, associated with a teno-synovitis, occurred on the back of the hand, and in which the presence of the gonococcus was demonstrated both microscopically and by cultural methods.

Horwitz,[11] in 1893, reported a case similar to the preceding and to the one which is reported below, associated with a tendovaginitis. The gonococcus was obtained in pure culture on serum agar, and also demonstrated in cover slip preparations stained with methylene blue, being found both free and contained in the pus cells.

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[1] London Medical Gazette, 1784.

[2] London Medical Times and Gazette, June 30, 1860, vol. i, p. 642.

[3] Russk. Med., 1886, iv, 487.

[4] Berl. klin. Woch., 1886. 231.

[5] Monatshefte f. prak. Derm., 1887, vi, 13.

[6] Correspondenzbl. f schweitzer Aerzte, 1887, xvii, 496.

[7] Ziegler: Beiträge z. path. Anat. u. allg. Path., 1888, iv, 174.

[8] Schweitzer Correspondenzblatt, 1889; Gesellsch. d. Aerzte in Zurich.

[9] Ann. de mal. gen. urin., 1889, vii, 462.

[10] Arch. f. Derm. und Syph., Wien, 1893, xxv, 330.

[11] Wien. klin. Woch., vi, 59.

Bujivid,[12] in 1895, reported a case of abscess due to the presence of the gonococcus, unassociated with infection of any tendon sheath. The patient was suffering from a chronic gonorrhea, and two days after catheterization had a severe chill, after which abscesses developed in the right popliteal space, in front of the elbow, over the right external malleolus and on the inner side of the left leg. The author states that all of these had their origin in the muscles, and none in the cellular tissue or neighboring articulations. He therefore classes the gonococcus with the pus-producing organisms.

Young[13] reports five cases of subcutaneous abscesses in the course of gonorrhea, in all but one of which the gonococcus was found alone. In all of these the abscess was adjacent to the urethra or to some synovial membrane.

Deutschmann[14] found organisms which were characteristic gonococci with regard to form, size, grouping, staining reactions and cultural characteristics, in the synovial secretion of an affected knee of a child suffering from ophthalmia neonatorum.

The patient in the case studied by the writers is a woman of about 40 years of age, married, and a housewife by occupation. Her present trouble began July 25, 1903, as sharp shooting pains around the base of the right thumb and index finger, which after 24 hours became so severe that medical aid was summoned. The hand was found on examination to be slightly swollen, especially over the location of the pain. Her temperature was found to be 101 F. Any motion of the index finger was extremely painful, especially movements of the metacarpophalangeal joint. The patient's husband had been under treatment for gonorrhea during the previous month, and consequently the present trouble was suspected to be a complication of a gonorrhea which the patient had acquired from her husband; but close inquiry failed to elicit any history of such a condition. She was therefore placed on antirheumatic treatment, and the pain controlled by sedatives, but without beneficial result.

The swelling and redness became more pronounced, and August 2 an incision was made over the proximal phalanx of the index finger, both above and below, resulting in the evacuation of a small amount of purulent material. After this the temperature fell to normal, but in the course of a few days rose again, and the swelling extended to the palm and dorsum of the hand. August 16 free incisions were made into the diseased area under chloroform anesthesia, and a considerable amount of pus was evacuated. The pus cavities were curetted and washed out thoroughly with a hot carbolic solution. The subsequent treatment consisted of hot bichlorid irrigations and antiseptic dressings. Recovery was uninterrupted, but the involvement of the flexor tendon resulted in its shortening, which prevents the complete extension of the index finger. There was no ankylosis of any of the neighboring joints. This fact, together with the evident involvement of the flexor tendon, indicates that the condition was purely a tendovaginitis.

BACTERIOLOGIC INVESTIGATION.

The freely flowing pus, obtained at the second operation, was received on a sterilized platinum loop and transferred to liquefied gelatin and agar tubes (45 C.). The gelatin tubes were kept at room temperature, and the agar tubes in the incubator at 37 C., for some days, without, however, showing any growth. Unfortunately, tubes of serum agar were not at hand, and growth on this medium was not attempted. Thin spreads of pus obtained as above were made on cover glasses, dried in the air, and fixed lightly in the flame. A portion of these spreads were stained with Loeffler's methylene blue, the balance with a 1:10,000 solution of neutral red. On examination, these preparations showed the presence of groups of "biscuit-shaped" diplococci, although not in very large numbers—not more than one or two such groups to a field (1/12-inch oil immersion). Similar diplococci were also found within the cell bodies of the leucocytes, and in all respects as regards form, size, arrangement, staining reaction, and grouping were typical gonococci. They were readily decolorized by Gram's method.

Although the organism could not be cultivated on the media employed, the characteristic appearance of the flattened diplococci, the grouping, the presence of the organisms in the pus cells, the decolorization by Gram's stain, and, above all, the inability to grow on the ordinary media, on which the ordinary pus germs readily thrive—leaves no doubt that the organism in question was none other than the gonococcus of Neisser.

The fact that such metastatic abscesses, due to the gonococcus alone, can occur in various parts of the body, even in the absence of symptoms on the part of the urethra or other portions of the genito-urinary tract, being established, the importance of routine microscopic examinations of pus from such abscesses, especially those connected with tendon sheaths, is apparent. A patient such as the above becomes an especial danger, not only to herself, but to those with whom she is associated, unless the true condition is understood. It is readily seen that the liability of such a patient to contract a gonorrheal ophthalmia or to infect the eyes of others, is infinitely greater than when the disease is localized in the urethra. The transference of purulent matter to the eyes of such a patient or to those of her young children, from an abscess on her hand, is indeed more of a probability than a possibility, unless especial precautions are taken to prevent.

Aside from the danger to which the ignorance of such a condition subjects the patient and her associates, the clinical discovery of the gonococcus in such an abscess affords a clear indication as to subsequent treatment. It is probable that in all cases the organisms growing in such metastatic abscesses have migrated from the mucous membrane of the urethra, this locality being, par excellence, the most suited for their growth. It is also probable that here they will be found in greatest numbers, whether the patient presents symptoms of urethritis or not. Proper treatment directed to the urethral condition should, therefore, be employed in all cases. First, for the purpose of curing the primary condition; and, second, as a prophylactic measure against other possible metastatic complications, endocarditis or synovitis, and especially to forestall the more serious dangers to which every sufferer from a chronic gonorrhea is liable.

TREATMENT OF TYPHOID PERFORATIONS.

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While the modern methods of treatment by the general practitioner have done much to reduce the percentage of deaths due to typhoid fever, the rôle played by the surgeon in lessening the death rate occupies a conspicuous place.

The tubbing and proper feeding do much to keep down temperature and maintain strength, but no medicinal agents nor the most careful management can overcome the great danger of intestinal perforation by ulceration. From a careful perusal of the literature and consultation of authorities we find that about 3 per cent. of all cases present this most dangerous complication, i. e., it is the cause of one-fourth to one-third of all deaths in typhoid fever.

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[12] Centrabl. f. Bac. u. Parasit., Jena, 1895, xviii, 435.
[13] Jour. of Cut. and Gen. Urin. Dis., 1900, xviii, 241.
[14] V. Graefe's Arch. f. Ophthal., xxxvi, 1.

In 3,686 cases, Schultz found peritonitis from perforation in 1.2 per cent., Liebermeister in over 2,000 in 1.3 per cent., while Hölscher found it in 6 per cent. in 2,000 cases, and Murchison in 11.38 per cent. in 1,721 cases. Fitz shows the mortality to be 6.58 per cent. from perforation in 4,680 cases tabulated up to 1891. In more recent times, since the subject has been more thoroughly studied, we find that Armstrong reports 932 cases, with 3.66 per cent. perforations, and McCrea and Mitchell cite 8 cases occurring in 275 patients. This, in comparison with the present-day mortality, would mean a very large proportion of deaths in typhoid fever due to perforation, for under former methods of treatment these cases practically all died and to-day the death rate from this cause continues large.

In 1898, Keen reported a total of 83 cases of typhoid perforations operated on with 19.3 per cent. recoveries, to which a year later, he added 47 cases with 28 per cent. recoveries. This work was largely done in this country, due probably to the doubt as to the efficacy and advisability of operation existing in the minds of the European surgeons, as expressed by Eulenberg in his paper in 1891.

In Keen's monograph, which caused the profession to awaken to this subject, he says that the accident is a very rare one in children, but Elsberg, in a very recent communication, thinks it almost as frequent as in the adult. Basing the frequency of cases in children as seen by the surgeon, i. e., 48 cases in a total of 315, we must conclude that, though not occurring as often, it can not be considered as an infrequent complication in children. We would especially call attention to these figures, in view of the fact that typhoid fever is said to be not only much more seldom seen in children, but that it also runs a far milder and shorter course. It may be of interest to know that one of Chevalier's cases was in an infant of 11 months of age, and that this author, in a large experience with the young in the hospitals of Paris, believes it to be a source of great danger in them.

Recognizing these facts, we should then be constantly on the alert for the very first symptoms indicative of perforation. It may take place at almost any time, even during the first week of illness, though most often after the second week. This is contrary to the older teachings and also the opinions which are held by many practitioners, it being popularly thought that the end of the third and beginning of the fourth week of illness is the time when this danger may be expected. It is not always an easy matter to determine the date of the illness, even after careful inquiry, as many patients are ill for a variable time before a physician is consulted or before they take to bed. In some of the reported cases the signs of perforation were really the first warning the patients had that they were very ill and were also the occasion for consulting medical advice.

It is also a mistake to believe that after the fourth week this danger is passed, for as many cases have been reported as taking place in the tenth as in the first week. Of 193 cases of perforation, tabulated by Fitz, the time of occurrence was as follows:

First week 4, 2d week 32, 3d week 48, 4th week 42, 5th week 27, 6th week 21, 7th week 5, 8th week 3, 9th week 2, 10th week 4, 11th week 3, 12th week 1, 16th week 1.

SEAT OF PERFORATION.

In 85 to 90 per cent. of cases perforation takes place in the last twenty inches of the ileum, though it may occur in the colon, and several cases of appendiceal ulceration and perforation have been recorded. The sigmoid may be the seat of the opening or the jejunum, and in the table of Fitz above quoted, it occurred four times in a Meckel's diverticulum.

SYMPTOMS AND DIAGNOSIS.

No case of typhoid should be so mild as to cause us to lose sight of this dreaded accident. We believe that the symptoms are such that a diagnosis can be made correctly in the majority of cases, if one is on the lookout in the least. These symptoms are those due to the insult to the peritoneum, and are not dependent on the perforation *per se*. The classical signs are pain, rigidity, tenderness. With these we have thoracic instead of abdominal respiration, which means fixation of the diaphragm, inhibited peristalsis, absence of liver dullness, tympany, vomiting, increase in blood pressure as shown by the sphygmomanometer in all cases, leucocytosis, increased pulse rate followed by rising temperature and altered facial expression and shock. Let us very briefly analyze the symptoms:

Pain is not a necessary accompaniment of typhoid, and while it may be present during the course of the disease, it is not continuous or persistent, but is temporary. Nor is the onset sudden as a rule, unless as an indication of some severe and dangerous complication. Ordinarily it is relieved by an enema. On the contrary, the pain of perforation is sudden and may follow a stool or manipulation of the patient. It begins in the hypogastric, though more often in the right iliac region, and spreads thence gradually over the entire abdomen. Not infrequently a stool soon follows, giving some temporary, slight relief. The pain may increase and be continuous or may after a time cease entirely, which means that a general toxemia has supervened. Even in the smallest pin-hole openings this pain is present. Persistence of pain without the slightest evidence of shock, if accompanied by rigidity, is almost sure to mean perforation. Acute or sudden or continuous pain should always be a danger signal and cause the attendant to redouble his care and vigilance, making more frequent visits and getting into touch with a surgeon so as to be prepared for the emergency. It may denote, in the absence of perforation itself, an ulceration through to the serous coat of the bowel and the approach or early possibility of extension through all the coats. It is the peritoneal layer alone which possesses nerves of sensation, hence the pain at this stage. Ulceration, no matter how extensive so long as the peritoneal coat is uninvolved, causes no pain.

Rigidity is one of the most valuable signs of peritoneal damage we have. It is noticeable almost at the beginning and may be present even before the perforation. Just as pain may denote an impending perforation, so may rigidity be found before the damage has extended through the peritoneal coat of the bowel. Localized at first to the affected area, it soon spreads over the entire abdomen, indicating spread of infective material. Unlike pain, which may be well borne and not cause much complaint in certain stolid individuals or in those profoundly septic or which may grow less and even cease as toxemia advances, rigidity is constantly present. The patient can not voluntarily overcome it. Its presence in the diaphragmatic muscle causes the alteration in type of respiration from abdominal to costal.

Tenderness usually exists most markedly in the right iliac region, i. e., over the seat of perforation, and over the now most violently affected serosa. It soon becomes more or less general, but may be slight over the abdomen, except in the region above mentioned or the hypogastric region. Osler says the attendant must be constantly on the watch for the sudden occurrence of the above three symptoms.

Inhibited peristalsis is, according to Taylor, a very important symptom. Not infrequently we find, however, that the inhibition has been preceded by a very active peristalsis immediately following the perforation as indicated by the two or three copious evacuations, which at times follow the onset of the very earliest manifestation of pain. These stools may contain blood from the perforating ulcer. That inhibition follows we can readily understand, and as the infection progresses, it becomes complete, resulting in paresis, which, in my opinion, indicates absolute hopelessness of recovery in this as well as in other peritoneal involvements.

Tympany and absence of liver dullness with pain, are, to our mind, the only really indicative symptoms of the perforation *per se,* all other symptoms being those of the infection rapidly following the peritoneal insult. This symptom, however, is so rarely present early that it is difficult to see how one is to differentiate the symptoms of the perforation from those of the peritonitis, which latter are the ones on which we depend for a diagnosis. Escape of gas is apt to take place so gradually that it is hardly a symptom to wait for before making a diagnosis, notwithstanding the fact that its presence is almost pathognomonic. I have seen cases with little tympany even hours after the perforation had occurred.

Besides the above local symptoms referable to the abdomen or seat of lesion, we have other symptoms serving to corroborate the diagnosis. We should not lay too much stress on them, as the local symptoms are, without these, enough on which to place the strongest reliance and base a sufficiently strong presumption.

Vomiting may or may not be present; in fact, it is not a symptom in more than 7 to 10 per cent. of the cases reported.

Blood pressure, measured by the sphygmomanometer, according to the reports of Crile and the Johns Hopkins School, furnishes a most valuable means of diagnosis. The cases are, of course, too few as yet to say with absolute certainty what the exact value of a rapid rise in blood pressure as thus indicated is, but from my experience I am inclined to believe this instrument will or should come into as general use as the stethoscope.

Crile, in five cases at Lakeside, made a diagnosis by this means, all verified by autopsy or operation. In one case a second perforation was also indicated by a rapid rise in blood pressure. With subsidence of peritonitis the blood pressure fell rapidly to normal again.

Leucocytosis has been shown to be of value only in connection with the other symptoms. This is probably accounted for by the rapid outpouring of leucocytes into the peritoneal cavity as a result of the infection. As McCrea and Mitchell have shown, even with other symptoms it may be misleading, two of their cases with this evidence and other symptoms presenting no perforation at operation. Armstrong, with an experience of 34 operated cases, says it is not to be relied on. Elsberg says: "It can be used only with circumspection as a diagnostic symptom, while the absence of a leucocytosis does not exclude the possibility of a perforation."

Pulse and temperature, of all the signs of perforation, are the least valuable. The character of the pulse is a very valuable sign, but the rate is hardly to be depended on. Like temperature, it means very little in many instances, and both are so frequently misleading that no reliance can be placed in either as even fairly constant from a diagnostic standpoint.

Facial expression may not be altered, except to indicate pain. Not infrequently, however, the expression is pinched, anxious and indicative of a very grave change in the patient's condition. When there is much shock this is especially true, and we have the expression so graphically described by Warren in this condition, when, as Gross says, the "machinery of life has been rudely unhinged."

Shock may be very marked or absent or so slight as to pass unnoticed. When marked it is a symptom of value only as indicating a most desperate case. I wish here again to draw attention to shock as a symptom not of perforation *per se,* but rather of a rapid and profound poisoning. The text-books lay entirely too much stress on this symptom of perforation. In my own experience in the one case operated on it was never a symptom, and I have seen other cases in which it was entirely absent. Without bleeding, this symptom is one either of rapid sepsis, with consequent obstruction or of early impending death. Notwithstanding this, it is not an indication for delay in treatment.

Of all these symptoms, the most important are pain, tenderness and rigidity.

TREATMENT.

To obtain the best results, the operation should be done promptly within certainly the first twenty-four hours; better still, as soon as a probable diagnosis is made. Of the six recoveries reported by Armstrong, five were operated on within thirteen hours after the first symptom, and Cushing believes that with careful watching and early diagnosis, 50 per cent. to 60 per cent. should be saved. In other words, we should operate if possible before the peritonitis becomes too general and too virulent. As lives have been saved, however, even in very late cases, who can say when a patient is beyond hope of recovery? One life in 100 or even in 1,000 is worth saving.

Some will say that cases may get well without operation. True, but as Fitz says: "Since perforation may take place without any suggestive symptoms, and since suggestive, even so-called characteristic symptoms, may occur without any perforation having taken place, it must be admitted that recovery from such symptoms is no satisfactory evidence of recovery from perforation."

It is also true that sometimes we may make mistakes and find no perforation, but we must remember that a peritonitis may exist without perforation which may demand celiotomy to rescue the patient. Murphy has especially called attention to this and reported several cases. In these, while there is no perforation, the ulceration has extended through all the coats except the serosa, and we have the bacteria finding their way through this thin wall into the peritoneal cavity. The symptomatology may then be precisely the same as in perforation; in fact, exclusive of the hole in the bowel, the pathology and outcome are similar. Chevalier says: "Operate even when the diagnosis is not fully decided," which means, of course, to operate promptly. Do not wait for all the positive and confirmatory evidences of the trouble or the golden opportunity will have been lost. Nor should we be too greatly perturbed about shock when present, as it is in these cases no indication for delay. Some of the best results have been in patients operated on in shock.

As to the technic of the operation, I would only say, do not try to do too much. Do not lose time in useless tinkering and fussing. Do the work quickly—best through an incision in the right linea semilunaris—close the opening in the bowel, and be sure to amply drain the cavity. If the opening is not readily found, let it be and drain extensively. To prolong the operation needlessly is bad surgery. If the patient is a bad subject for a general anesthesia, use a local anesthetic.

Escher has recommended stitching the edges of the intestinal opening to the parietal incision, and Le Compte advises damming off the infected area, particularly when there are multiple openings near each other, with a gauze wall. An artificial anus presupposes only one perforation. The mattress Lembert suture is looked on as the best. Extensive flushing and leaving some of the normal saline solution in the belly, with of course drainage, is, I believe, the preferable way to overcome the peritonitis, although Finney and others continue to advise dry mopping of all infected areas.

In conclusion, I wish to read the following table of Elsberg and some additional cases I have found in the literature bringing the reported cases to date:

REPORTED CASES OF OPERATION TO APRIL, 1903.

	Adults.	Children.	Total.
Cases operated on	264	25	289
Recoveries	59 (22.4%)	16 (64%)	75 (25.9%)
Deaths	205	9	214 (74.1%)

ADDITIONAL CASES.

	Cases.	Recoveries.
Armstrong	8	5
Crile	4*	2
Chevalier and other Parisian surgeons	13	5
Frank	1	0
Harte	13	3
Méry	1	0
Total	40	15 37.5%

*One unoperated.

Of these last, 14 are reported as children with 5 recoveries, or 35 57 per cent.; 26 adults, 10 recoveries, or 38.46 per cent.

My own case was as follows:

A man, 32 years of age, in the third week of typhoid fever, living in the country, was seized with a sharp pain in the right iliac fossa, which disappeared after copious movement of the bowels. Two hours later his temperature became very slightly subnormal, and continued so or normal for twenty-four hours. When seen by me 60 hours later his temperature was slightly above 99 F., pulse between 86 and 90, though it rapidly rose to 112. There had been no vomiting, and distension of the abdomen had been present for only a short time after the sudden pain. The patient presented a good appearance, without pain or tenderness, and was not depressed. Tympany was present over the entire abdomen as far as the fifth intercostal space, with marked rigidity and absence of liver dullness. The pulse was hard and characteristic of peritonitis. Diagnosis of perforation was made, with prognosis of death, with or without operation. The patient asked that he be given the slight chance by operation. On opening the abdomen it was found filled with pus and fecal matter and the intestines distended above a point about eighteen inches above the perforation, below this point the intestine was flat. The perforation was closed with difficulty, the cavity washed out and five drains inserted. The patient was put to bed in fairly good condition, and next morning had a pulse of 130, no vomiting or pain. He died on the second day.

CONCLUSIONS.

From the foregoing we can make the following summary:

1. Perforations are to be expected in about 2.5 per cent. of all cases of typhoid fever.

2. Prompt surgical intervention is the best and only logical treatment.

3. Early diagnosis is most desirable, and will be the means of greatly reducing the mortality, as 55 to 60 per cent. would recover.

4. Diagnosis, sufficiently early to achieve these results, can only be made by careful watching, treating all cases as serious ones and a proper interpretation of the early, even the preperforative, symptoms, the suggestions of Cushing as to this stage being of value. At the first indication of this stage have the surgeon in consultation and be prepared to operate.

5. The sphygmomanometer should come into general use as an important aid to diagnosis.

6. More cases die from delay than from errors in surgical technic. Therefore, in doubtful cases, though a mistake may be made and no perforation found, operate.

7. No case, unless dying, is so desperate as to be beyond some hope of saving. So in operating, lose no time and be sure to drain.

8. Get into the abdomen quickly and get out more quickly.

(NOTE.)—Since this paper was written, Dr. W. D. Haggard of Nashville has reported, in a paper read before the American Association of Obstetricians and Gynecologists, three cases, with three recoveries.—L. F. (See THE JOURNAL A. M. A., Oct. 17, 1903, p. 979.)

A SIMPLE, ACCURATE AND RAPID METHOD OF LOCALIZING FOREIGN BODIES IN THE ORBIT.

VARD H. HULEN, A.M., M.D.
SAN FRANCISCO.

When the eye has been injured and there is a possibility that a foreign body remains, the very first procedure is to determine, if possible, the exact location of the object in reference to the eye. If the foreign body can not be seen with the ophthalmoscope we must resort to the x-ray, and should the result of such examination be positive, we then proceed to localization before any means whatsoever are tried for its removal.

As the vast majority of the foreign bodies in eye cases (iron, steel, copper, lead, glass, etc.) are revealed by the Roentgen ray, we can usually be certain of a positive result if the foreign body be present. The circumstances attending the injury often determine the probable substance of the foreign matter present. Fortunately most of such injuries to the eye are produced by pieces of iron or steel, and as these objects are attracted by a magnet we have thus an invaluable method for their removal.

Since the advent of the incomparable giant magnet of Haab, great advancement has been made in the successful treatment of these cases, but I do not at all agree with those who advocate using the Haab magnet in an attempt to determine whether or not an eye contains such a foreign body. I do not consider it good surgery or good sense to attempt to remove a piece of steel from the eye before its exact location is known. This being so, it is most desirable to have a method of localization that is simple, that is quickly used and that is absolutely accurate.

A number of methods of localization have been advocated, but the only one to be recommended, with which I am familiar, is the method of Makenzie Davidson. In London over two years ago I had the pleasure of seeing Mr. Davidson repeatedly apply his method with excellent results. But his method requires considerable special apparatus, a good deal of time, and I find the exact details are not easy to carry in the mind. For these reasons I sought a simpler and more rapid method, and yet one equally as accurate. Since August, 1902, I have employed a method of localization which has fulfilled all the requirements. With me it is original, but I do not suggest it as a new method, for not a few things in medicine presented as new later are proven otherwise.

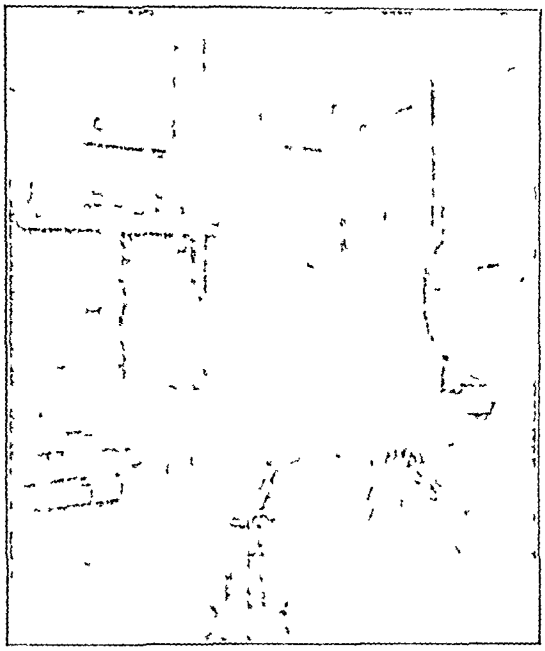

Figure 1.

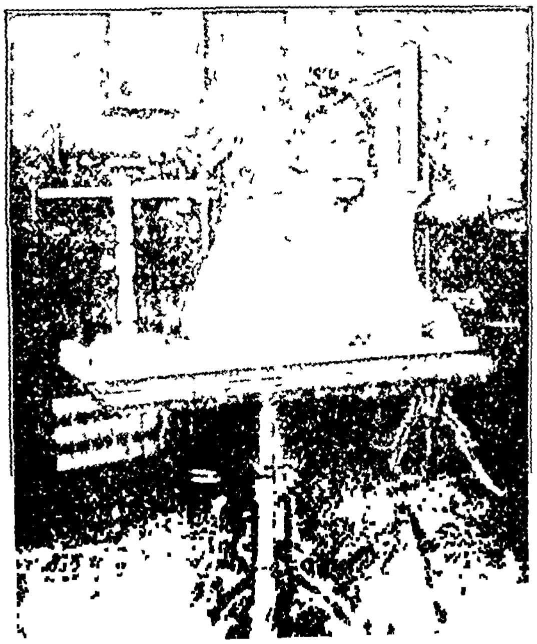

Figure 2

My "localizer" (Fig. 1) can be made by any carpenter, and the photograph presented is explanatory of its mechanism. As the head must be absolutely immovable, I have the patient hold her position firmly with her teeth, in preference to Makenzie Davidson's head fixation (Fig. 2).

The method of procedure is as follows: A piece of lead of suitable size and shape is securely fastened with adhesive plaster to the margin of the lower lid of the injured eye directly under the center of the pupil. (This marker might be fastened in the conjunctiva.) Then the distance from the upper extremity of this "marker" to the center of the cornea and also the distance the marker is anteriorly or posteriorly to the apex of the cornea is taken and recorded. A Crookes tube is next adjusted vertically in the holder of the localizer so that the luminous point of the anode and the point where the wires cross and the V-shaped sight are in a horizontal line. Then the distance from the anode to the cross wires is measured and recorded. The patient is placed in position, a photographic plate is put in the frame and Photograph 1 is taken. The patient remains in the same position, but the tube is raised a definite distance, usually three inches, and Photograph 2 is taken, and both pictures are sent to the dark room to be developed. The marker on the patient's lid is again inspected to be sure it has not shifted its position since first measured.

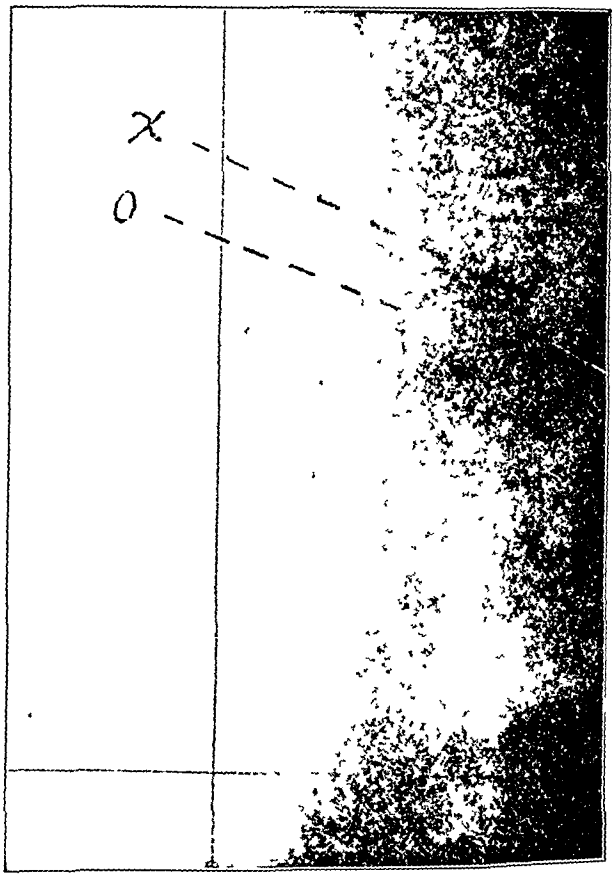

Fig 3.—Case 1. Photograph 1. X Foreign body. O Point of marker. In this photograph, as also in Figures 4, 9 and 10, the foreign body shadow has been marked over to make it more clear

With these two plates and the accurate measurements one can quickly determine the exact position the foreign body occupies in the orbit.

On a sheet of drawing paper make two vertical lines, the distance between them being that recorded for the distance between the anode and cross wires. Cross each of these lines near the bottom by a horizontal line, and mark the point of crossing of left line "1." Then mark a point "2" on this left vertical line, the same distance above as the tube was displaced vertically when taking the second picture. Then in Photograph 1 measure the vertical distance from the shadow of the *horizontal* wire to the upper extremity of the shadow of the marker, and on the right vertical line in the diagram beginning at the point crossed by horizontal line measure vertically this distance, designating that point "0, 1." In the same way measure and mark the vertical distance from shadow of horizontal wire to shadow of foreign body "X, 1." Now take Photograph 2, measure and mark shadows of the foreign body and marker on same vertical line as with Photograph 1, designating the point of the foreign body "X, 2," and that of the marker "0, 2." Then connect by a continuous straight line point "1" on left vertical line with point "X, 1," on right vertical line, also by a broken line with point "0. 1"; connect point "2" in a similar way to "X, 2" and "0.2."

It is evident that the point where the *continuous* lines cross represents the location of the "marker," and that the point where the *broken* lines cross is the exact location of the foreign body in the vertical plane. As the relation between the eye and the marker is known, draw schematically an eye according to its anatomic measurements in its correct position, using the vertical measurement previously made from the center of the cornea to the upper extremity of the marker. The location of the foreign body to the eye in the vertical and lateral meridians is thus made plain by our diagram.

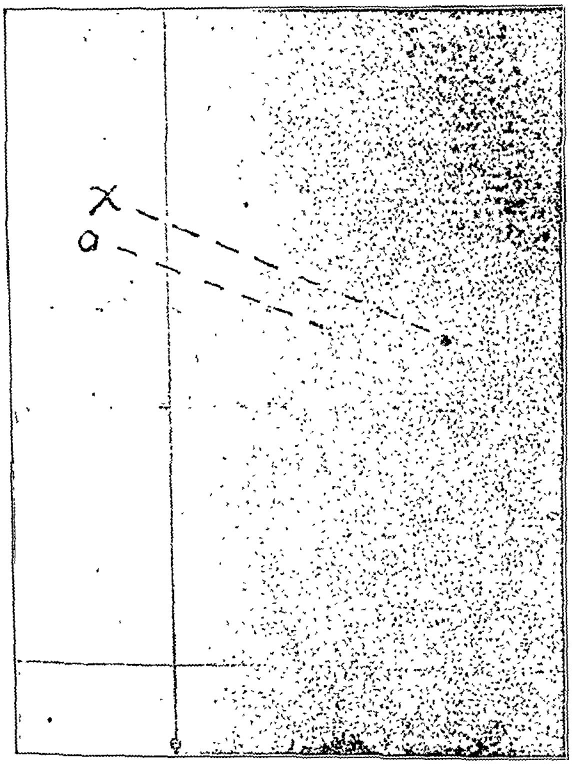

Fig. 4.—Case 1. Position 2.

Now for the upper part of the figure. Mark a point on the left vertical line "1" and also a short line at the corresponding horizontal point on the right vertical line. Then in Photograph 1 measure the distance from the shadow of the *vertical* wire to the shadow of the "marker" and mark the point of that measurement above the crossing of the short line "0', 1' "; also measure the distance from the shadow of the vertical wire to the shadow of the foreign body, and as above described, mark it "X' 1'." Connect point "1'" by a continuous line to "0,' 1' " and by a broken line "X', 1'." Then erect across the paper a perpendicular continuous line through the point corresponding to the marker and a broken perpendicular line through the point corresponding to the foreign body in the lower part of the diagram. Again it is evident that the points where these lines cross the above lines will mark the exact location of the marker and the foreign body in the horizontal plane. Again draw the eye in its correct relationship to the "marker," using the other measurement from the marker to the apex of the cornea. Thus the location of the foreign body in the relation to the eye in its horizontal meridian is revealed and the localization is complete and perfect.

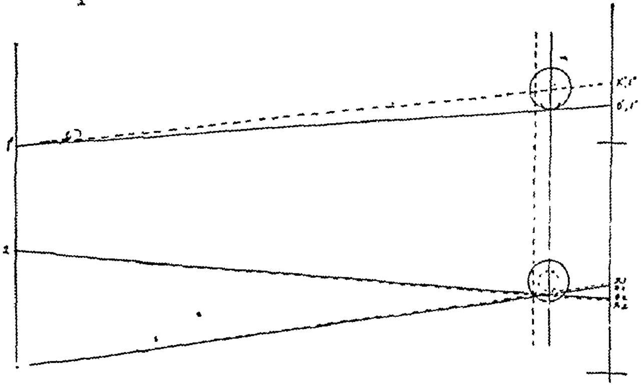

Fig. 5.—Case 1.

I need hardly say that after the idea has been grasped, one can draw this complete diagram unhesitatingly in far less time than it takes to read the description of how it is done.

Three foreign body cases are chosen from my records and reported for their interesting points, as well as to illustrate this method of localization.

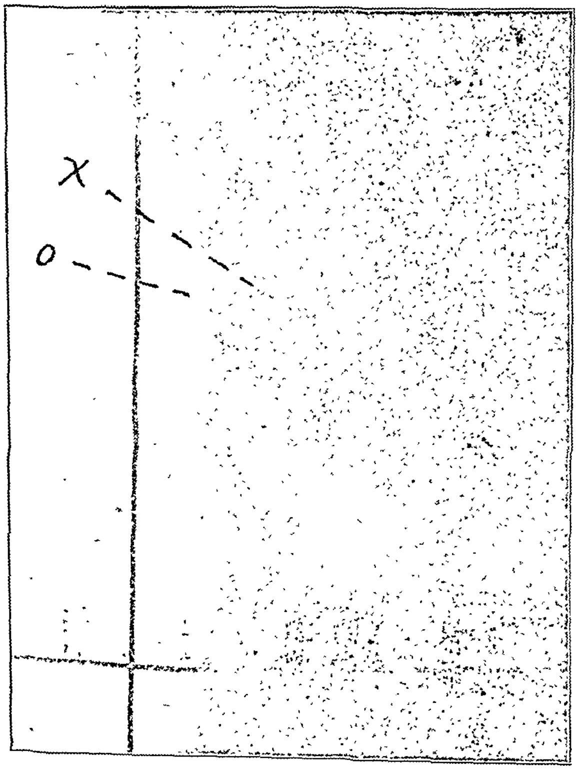

Fig. 6.—Case 2. Photograph 1.

Case 1.—Male, aged 43 years, expert machinist. Fourteen years ago he was struck over the right eye causing loss of vision of this eye from traumatic cataract. The sight of the left eye was perfect until Aug. 14, 1903, when a flying chip of cast iron from a neighboring workman's chisel injured it. He-placed himself in the care of an oculist within an hour after receiving the injury. Not much pain followed, and he was able to perform his toilet, but vision was rapidly lost. His oculist reported that at the *first examination there was a small* wound at the sclerocorneal margin below and to the temporal side, and a clot of blood or something in the vitreous to the nasal side. The patient did not believe the iron had entered the eye at all. A small magnet was applied and later the Haab magnet was tried repeatedly without any result or any sensation of pain or drawing feeling about the eye. Very slight reaction followed the injury, but he was kept under daily observation.

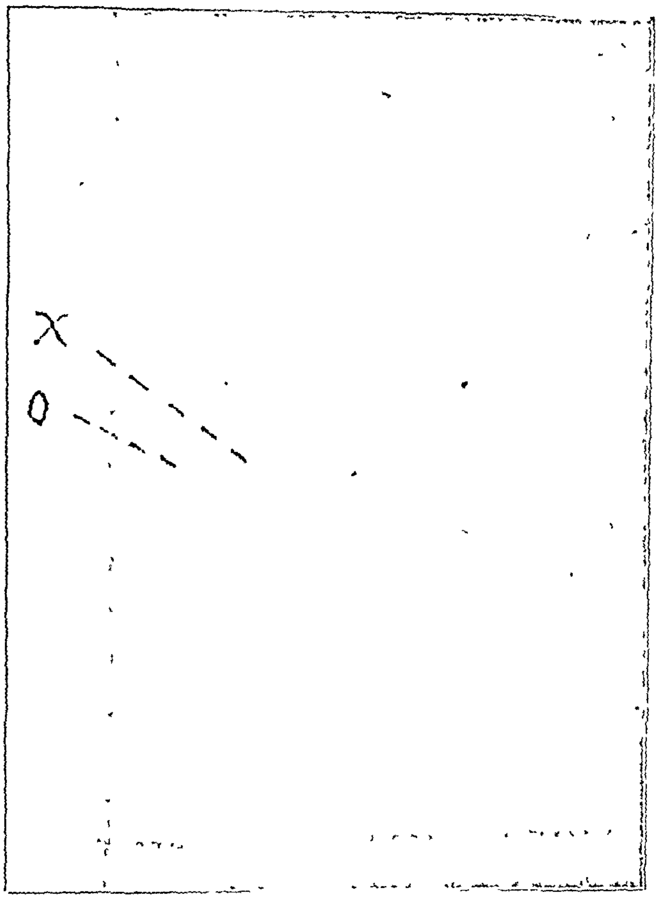

Fig 7.—Case 2. Photograph 2.

Four months later the patient consulted me. The left eye was free from pain and inflammation, a traumatic cataract obscured the pupil, a very insignificant scar marked the site of the injury. Vision =1/∞. Projection faulty. T.= —½. An *x*-ray examination showed the presence of a foreign body in the orbit.

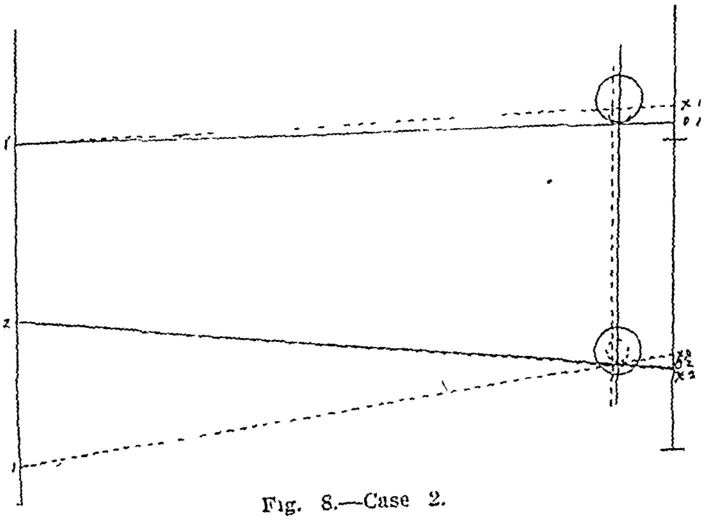

Fig. 8.—Case 2.

Localization by the method described above revealed the fact that the piece of iron was in the inner and lower part of the wall of the eye. As this condition seemed improbable I felt that some slight error had been made in my measurements, and that probably the iron was inside the eye, resting on the wall at the site shown. Then I tried my giant magnet again and again with a negative result. The patient was sent to the hospital, and next day, under chloroform, an incision, *guided* by the localization, was made with a cataract knife, cutting into the iron, but it was even then found impracticable to remove it with the magnet or forceps, and as the eye was hopelessly blind in any case, enucleation was done. Thus I became possessed of a most interesting and beautiful specimen, for the small elongated piece of iron was found to be in the wall of the globe, one point without and the other point within the eye. My localization had been absolutely accurate.

Subsequently the cataract was successfully removed from the right eye.

This case proves that the giant magnet is not at all a reliable test in the presence of an injury to the eye from iron or steel, for its negative result misled the patient's former surgical adviser, who counseled a let-alone plan of treatment.

Case 2.—Male, aged 22 years, logger in lumber camp; referred to me by an oculist confrère with the history that on March 17, 1903, while trimming a recently spliced wire rope with a hatchet, his left eye was injured by a flying particle He was treated by a local surgeon until the eye became quiet A month after the injury he had a severe pain in the other (right) eye, which led him to seek advice in San Francisco.

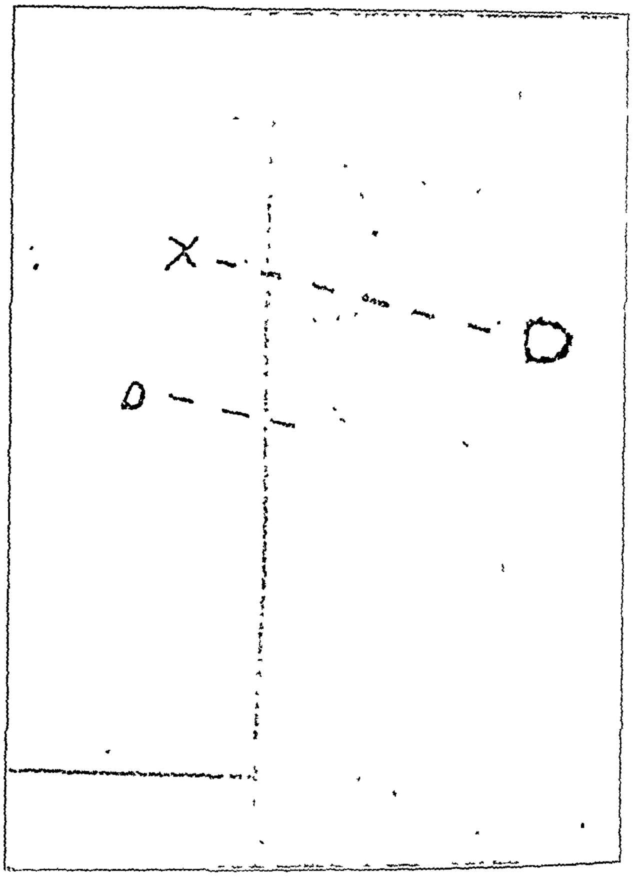

Fig. 9—Case 3. Photograph 1.

My examination, April 30, 1903, showed the right eye to be perfectly normal. In the left eye there was a small corneal opacity at upper edge of pupil, traumatic *cataract, posterior* synechia at point corresponding to corneal macula. *Vision* =3/200. Tension normal, eye perfectly quiet.

The *x*-ray revealed a small foreign body in the orbit. The repeated applications of the *Haab magnet* resulted negatively, as in Case 1.

Next day localization showed the particle to be in the eye below and slightly to the nasal side, probably resting *in the* posterior surface of the swollen lens. Not knowing the conditions I again applied the giant magnet, having the patient turn the eye as strongly upward as possible. After a moment he complained of pain; reducing the strength of the current I directed the patient to look straight ahead and then down, and the piece of steel entered the anterior chamber. A small section was made in the cornea and the foreign body was easily extracted. No reaction or change of vision followed the operation.

This case again shows the unreliability of the Haab magnet to reveal the presence of a piece of steel in the eye; it shows the accuracy of this method of localization, but—what is here most important—the exact location of the foreign body enabled me to remove it successfully with the Haab magnet, while before localization I failed.

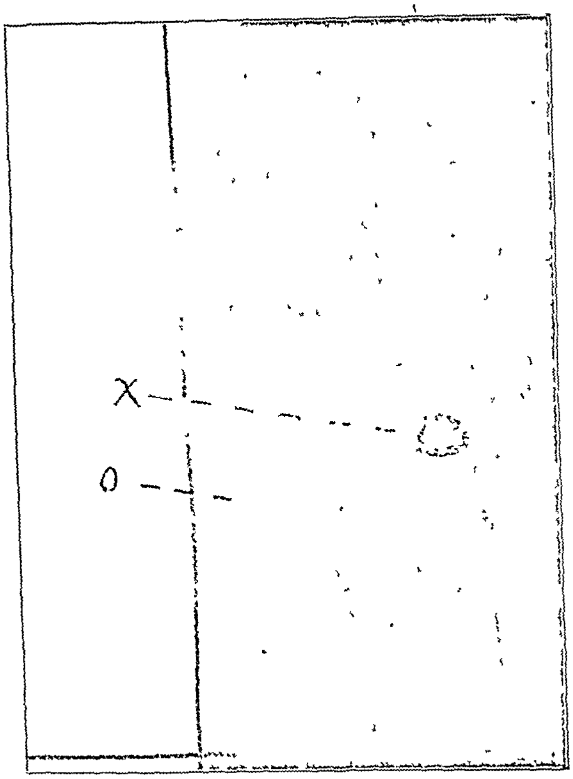

Fig 10—Case 3 Photograph 2.

Case 3.—Male, aged 36 years, blacksmith. Aug. 1, 1903, while striking, a flying piece from the sledge hammer struck him in the left eye, destroying the sight instantly. Aug 3, 1903, the patient was brought to my office by his oculist to try the effect of the giant magnet. Examination showed a penetrating wound of the cornea extending from the center downward and slightly outward 8 mm., a corresponding injury to the iris and the lens, no reflex from fundus. Vision = 0, globe soft.

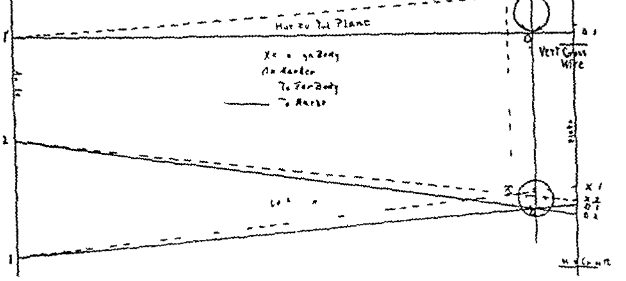

Fig 11—Case 3

The result of application of the Haab magnet to the eye in various positions was entirely negative

An x-ray photograph revealed the presence of a large foreign body in the orbit. Localization by the method detailed above showed the foreign body to be entirely outside the eye (see diagram). Although it was not necessary, enucleation was done by the oculist in charge of the case as the eye was hopelessly blind, and the healing would require the patient's detention in the hospital, etc. Thus we obtained the proof that my localization was correct; the wound of exit of the foreign body was found in the posterior and inner wall of the globe. Both the wounds of entrance and exit were as clean cut as if made with a sharp knife. The axis of one wound being almost at a right angle to that of the other, showed that the foreign body twisted on itself in its passage through the eye. The wall of the eye was unusually thin.

This case again shows the necessity of exact localization, for it seemed quite improbable under the circumstances that so large an object would go entirely through the eye.

Because of the known position of the foreign body in the orbit the eye could have remained with perfect safety had a cosmetic result been of more importance than time and expense. The piece of steel in this case was 8 mm. in one diameter by 5 mm. in the other. We knew the foreign body to be quite thin from the faintness of the shadow in the x-ray picture, as well as from the clean-cut lines of the wounds.

751 Sutter Street.

STRICTURES OF THE FEMALE URETHRA.

WITH REPORT OF CASES.*

H. L. E. JOHNSON, M.D.
WASHINGTON, D. C.

Strictures of the female urethra are narrowings of the intima of the canal of a greater or less degree, which impede or prevent the passage of the urine by the natural course from the bladder. They are congenital or acquired, single or multiple, and may be classified as stenosis or obstructive, atresia or retentive, atresia, nonretentive, when the urethra becomes occluded from disuse associated with vesicovaginal fistula and atresia with urine discharged through the umbilicus via a patulous urachus. Various modifications of these varieties are found associated with malformation of the bladder.

Congenital atresiæ are usually located at the neck of the bladder. or in the upper third of the urethra, but obliteration of the entire canal, or its absence, has been noted. Acquired cases, if traumatic, are situated at or near the site of the injury, while, if non-traumatic, they are found usually in the middle third of the urethra.

Statistics are lacking as to frequency. The few authors who mention the condition agree that it is uncommon. About twelve years ago I read a paper before a Washington society, reporting a case of acquired stenosis, with retention, calling attention to the absence of statistics, and the large number of standard authors who made no mention of the disease. Some recent text-books mention the subject only casually, while others do not mention it at all.

The causes are congenital malformation, traumatic, internal or external, associated with abnormal, prolonged or instrumental labors. Injuries of the genitals from burns, scalds, falls, cicatrices following operations and contractions from free use of caustics. Inflammation and infection from gonorrhea, urethral chancre and chancroid, septic instruments, urethral masturbation, tumors and adhesion bands in vagina. Tumors within the urethra are said never to cause stenosis or atresia.

The pathologic alterations resulting from congenital malformation, inflammation, infection, pressure and trauma, may present any degree of structural change from obliteration or occlusion of a portion, or the entire urethra with fistula and bladder ureter or kidney complication; to the simplest submucous connective tissue infiltration, restricting only slightly the lumen or elasticity of the canal.

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* Read before the Tri State Medical Association of the Carolinas and Virginia, Danville, Va.

The symptoms of acquired stenosis resemble those of cystitis, frequent, scanty, painful or difficult urination or retention. In some instances the urine is normal, leading to error in diagnosis by directing suspicion to surrounding organs, the tubes, ovaries or uterus especially when displacement exists. The urine may contain blood, pus or mucus, and hydronephrosis may result from retention. Congenital atresia without fistula presents unmistakable physical signs of retention or distention. Atresia co-existing with fistula or other malformations has no distinctive symptom, except the closed canal.

Diagnosis is based on discovery of stenosis or atresia by the use of olive-pointed sounds, bougies or metal catheters. The condition of urine, even in advanced cases, is often misleading. Infrequency of the disease causes delay in diagnosis; therefore, no physical examination in "disease of women" should be considered complete until the catheter has been passed into the bladder.

Prognosis is favorable in acquired stenosis or atresia, except where advanced bladder or kidney disease exists from infection or distention. In congenital atresia, it will depend on the complications in individual cases.

Treatment of acquired stenosis or atresia consists in gradual or rapid dilatation with olive-pointed sounds, bougies, metal catheters, urethral or uterine dilators, and in some cases, cutting or incision. Constitutional medication should invariably follow surgical correction of stenosis or atresia from urethral chancre. Cicatricial bands in the vagina contracting the urethra should be incised, stretched and loosened up. Bladder and urethral irrigation and flushing should be practiced in all cases. Treatment of congenital atresia will depend on the extent and the character of complications. It may be necessary, in extreme distention, to puncture the bladder to evacuate its contents, or incise, making either a vesicovaginal or a urethrovaginal fistula, before opening the atresia, closing the incision or fistula after the integrity of the reconstructed urethra is assured. Atresia complicated with vesicovaginal fistula should be dilated or incised, subsequently closing the fistula. Atresia complicated with urine escape at umbilicus through patulous urachus, should be dilated or incised without making a vesical fistula. After changing the course of the urine, the patulous urachus is supposed to close and atrophy. (A patulous urachus is sometimes observed in abdominal surgery.) Reed advises as follows:

> Where atresia of the upper part of the urethra is associated with the vesicovaginal fistula, the operator may cut out the portion of the urethra and unite the neck of the bladder to the portion of the urethra below the excision. If atresia exists between a urethral fistula below and a vesicovaginal fistula above, the readiest way to deal with it is to thoroughly loosen up the tissue and bring the upper edge of the vesical fistula down to the outer edge of the urethral fistula. To unite such a fistula, however, a combination of the transverse and longitudinal operation may be done. A transverse incision may be made by making an artificial vesicovaginal fistula just above the neck of the bladder. The upper edge of this can then be stitched to the lower edge of the urethral fistula, and, after healing has taken place, the edges of the original vesicovaginal fistula can be closed by stitches placed so as to bring the edges together from side to side, leaving a longitudinal scar.

Case 1, 1892 (referred to above).—Widow, aged 23, white. Bladder trouble for several years. Many physicians consulted. Urination frequent, painful, scanty. Urine examination, sp. gr. 1022, neutral, trace of albumin, no sugar by microscope, blood, pus, but no casts. Within one week, retention of urine for 20 hours occurred, bladder became distended, violent pain with tenesmus. Metal catheter located obstruction in middle third of urethra.. Considerable force required to pass through stricture. Subsequent treatment, gradual dilatation (to 36, French scale), and bladder irrigation. History of gonorrhea several years before.

Case 2, 1893.—Single, aged 19, colored, seen at my service at Emergency Hospital. Injured and burned by explosion of shotgun between thigh when a small girl. Extensive deformity from cicatricial contraction. Vulva distorted almost beyond recognition and drawn above pubes to left side. External meatus closed to pin-point size, by cicatrix. Urine passed by drops. Incised cicatrix, removing wedge-shaped piece, and dilated. Patient never returned. Subsequent history unknown.

Case 3, 1898.—Married, aged 25, white. Resided in a southern city. Pregnant six months, had supposed ovarian tumor, operation had been advised. Consulted me, February, 1898. Complained of frequent, painful, scanty urination since childhood. Examination in office. Pregnancy determined, together with a tumor size of a cocoanut, sensitive and fluctuating, located on the right side of the uterus. Introduced metal catheter, locating stricture two and a half inches from meatus, admitting small whalebone bougie, gradually dilated stricture and forced silver catheter through obstruction, urine escaping constantly. Tumor promptly disappeared. Gradually dilated to 36 (French). I could learn no cause for stricture. Patient returned to her home and was delivered by her regular physician. I have recently learned that there has been no subsequent trouble. The tumor had every appearance of being ovarian, until urine was drawn.

Case 4, 1900.—Single, aged 28, white. Neurasthenic, almost a nervous breakdown. Bladder weakness since infancy, almost incontinence. Still wets the bed at night. Been in sanitarium for spinal irritation, painful coccyx and hysteria, urine normal. Examination showed a small caruncle, urethra inflamed. Two strictures found at middle third. Gradual dilatation. Improved in health promptly. Nervousness disappeared. Complete control of bladder day and night. Patient now entirely well and married.

Case 5, 1903.—Single, aged 38, white. Pelvic symptoms for past 20 years. Polypus uteri, frequent, painful urination. Disturbed frequently at night. Polypus removed, uterus curetted. Urethra explored under ether. Five strictures of various degrees found. Rapid dilatation. Patient apparently restored to perfect health.

Case 6, 1903.—Single, aged 39, white. Always in bad health. Under physician's care more or less all her life. Uterine disease for many years. Urination frequent, scanty, painful, often wets the bed. Urine always reported to be normal. Menses almost constant, profuse, with clots. Examination, uterus enlarged, anteflexed, marked pelvic adhesions, cervix eroded. Under ether broke up pelvic adhesions, curetted uterus, explored the urethra, discovering two small strictures close together at middle third. Rapid dilatation. Patient has been steadily improving in health. All old symptoms have disappeared.

1821 Jefferson Place.

Poisoning by Honey.—The occurrence of severe poisoning following the ingestion of honey calls attention to the possibility of the collection by the bees of the active principles of some plants. Gelsemium and powerful narcotics thus have been the causes of giddiness, cardiac weakness, pruritus, amaurosis, edema of the glottis and even death. The occurrence is rare, but is to be remembered in view of the fact that the etiology in cases presenting some of these symptoms may not be readily discovered.

TAHITI FROM A MEDICAL STANDPOINT.

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CHICAGO.

Very few people who left the schoolroom twenty-five years ago would be able to locate Tahiti, and many of them have even forgotten the name. The children fresh from school recall it in connection with the difficulty they encountered in finding the little dot in the great trackless South Pacific Ocean, surrounded by a group of still smaller islands, called the Society Islands, so named in honor of the Royal Society of London by the famous explorer, Captain Cook.

Tahiti is nearly 4,000 miles distant from San Francisco, in a southwesterly direction below the equator, in latitude 17, hence in a latitude similar to that of the Hawaiian Islands, which are situated about the same distance north of the equator.

I had heard much of the beauty of this far-off island, and decided to spend my midwinter vacation by paying it a visit. Formerly the passage from San Francisco had to be made by a schooner, which required several months. For the last three years the island has been made readily accessible by a regular steamer service. The staunch steamer *Mariposa* of the Oceanic Steamship Company of San Francisco sails from that port every thirty-six days, makes the trip in twelve days, and remains at Papeete, the capital of the island, four days, which gives the visitor ample time to visit the most interesting points and make the desired observations.

The track of the steamer is over that part of the Pacific Ocean which is comparatively free from violent storms, between the storm centers east and west from it. The trade winds cool off the tropical heat in the vicinity of the equator, rendering the voyage at all seasons of the year a pleasant one. I know of no better way to spend a short midwinter vacation than a trip to Tahiti, the island paradise, the most interesting and beautiful of all islands. The twenty-five days of voyage on the ocean, the few days on shore, occupied by a study of its natives, their customs, manner of living, visits to the various points of historic interest, and the greatest of all genuine pleasures, the contemplation of nature's choicest exhibitions in the tropics, are best adapted to procure physical rest and pleasure, and pleasing as well as profitable mental occupation.

No writer has ever done justice to the natural beauties of this island gem of the South Seas. The towering mountains, the tropical forests, the numerous rippling streams of crystal water, shaded dark ravines, the palm-fringed shore, the lagoons with their quiet, peaceful, clear waters painted in most exquisite colors of all shades of green, blue and salmon, their outside wall of coral reef ceaselessly kissed by the caressing, foaming, moaning surf, the nearby picturesque island of Moorea, with its precipitious rugged mountains rising from the sea, the flat, basin-like, palm-clad atolls in the distance and the vast ocean beyond, all are pictures of which the mind never tires, and which engraft themselves indelibly on the memory.

The peaceful, quiet, sleepy little island is an ideal place for physical and mental rest. Nature has provided so well for the natives that labor on their part is rather a matter of choice than necessity. The few European and American inhabitants soon lose their inborn energy under the soothing and somewhat relaxing influence of the tropical climate, and limit the hours of their work to a minimum. The entire population, the laborer, the mechanic, the merchant, the rich and the poor, rest from ten until noon, and the doors of every shop are closed at five in the afternoon. The visitor will do well to follow the example of the natives, and devote the midday hours, the hottest of the day, to rest, and a short after-breakfast siesta.

THE CLIMATE.

The climate of Tahiti, although tropical, is favorably influenced by the trade winds and frequent showers. The breezes from ocean and land keep the heated atmosphere in motion most of the time, day and night. The entire island, from shore to the highest mountain peaks, is covered by forests and vegetation, which retain the moisture and attract the clouds, securing throughout the year a sufficient rainfall to feed the numerous mountain streams and water the rich soil of the mountain sides, valleys and lowlands along the shore. The temperature seldom exceeds 90 F., and during the coldest months, March and April, it occasionally falls as low as 65 F. The atmosphere is charged with humidity, and when this condition reaches the maximum degree the heat is oppressive, more especially when there is no land or ocean breeze. Papeete, partially inclosed by mountains, and on the leeward side of the island, is said to be one of the warmest places in the island.

Tahiti's summer time is our winter. I was fortunate in visiting the island during the latter part of January, which is the spring time there. It was the time when Nature makes a special effort to produce the luxurious tropic vegetation after the drenching rains of December. It was the time when the evergreen trees cast off here and there a faded leaf to be replaced by new ones from the unfolding buds. It was the season of flowers and the greatest varieties of fruits. For a winter vacation the months of January and February offer the greatest inducements. Those who are in need of a real rest and are fond of a long ocean voyage and enjoy tropic scenery and the wonderful products of the fertile soil of the tropics, should not fail to visit Tahiti, the little paradise built in the midst of the vast expanse of the Pacific Ocean.

INHABITANTS.

It was my privilege during my brief stay in the island to meet Tati, chief of the Papara district. He is a direct descendant of one of the two noble families of the island, the Tevas, and one of the most prominent and influential citizens of the colony. I asked him to what race the Tahitians belonged. He had a ready reply. He said: "We belong to no race; man was created here; this is the Garden of Eden." There is much force, if not truth, in this expression when we take into consideration the charming beauty of the island and the wonderful provisions which Nature has made here for the existence of man. Then, too, the Tahitian is a good specimen of manhood, intellectually and physically, far superior to the negro race and the Mongolian. The Tahitians are Polynesians, like the inhabitants of most of the islands in the South Seas, and there can be but little doubt that the Polynesians belong to the Malay race, having migrated from island to island, from west to east. The invasion of the island by so many Europeans during the last century has done much to destroy the original, genuine Polynesian type of its inhabitants, more especially of those who live in Papeete, the only city in the island. In the remote country districts the purity of the native blood has been preserved to a greater extent, as well as the primitive customs and habits of the people.

In stature the Tahitian compares well with any other race. The face is expressive of more than ordinary intelligence. The aquiline nose is commonly seen among them, and there are many varieties both of hair and complexion. In complexion they resemble more nearly the Japanese than the Chinese. The beard is thin, the prevailing hair jet black, straight or wavy and long; eyes large and black; no drooping or obliquity of the eyelids. Their face is generally roundish; no unusual malar prominences; forehead slightly receding, mouth large, lips thick, wide nostrils, ears large, chin well developed. Much has been said about the beauty of some of the women of the South Sea islands, but I am sure I do them no injustice if I say that these descriptions are overdrawn by sentimental writers and do not correspond when put to the test of comparison with the reality. Old European residents of Papeete agree in that the morality of the natives has not improved since they have been under the influence of civilization forced on them by the European invaders. The greatest fault of the people is their incurable laziness, a vice for which they are not entirely responsible, as Nature has provided so bountifully for their needs.

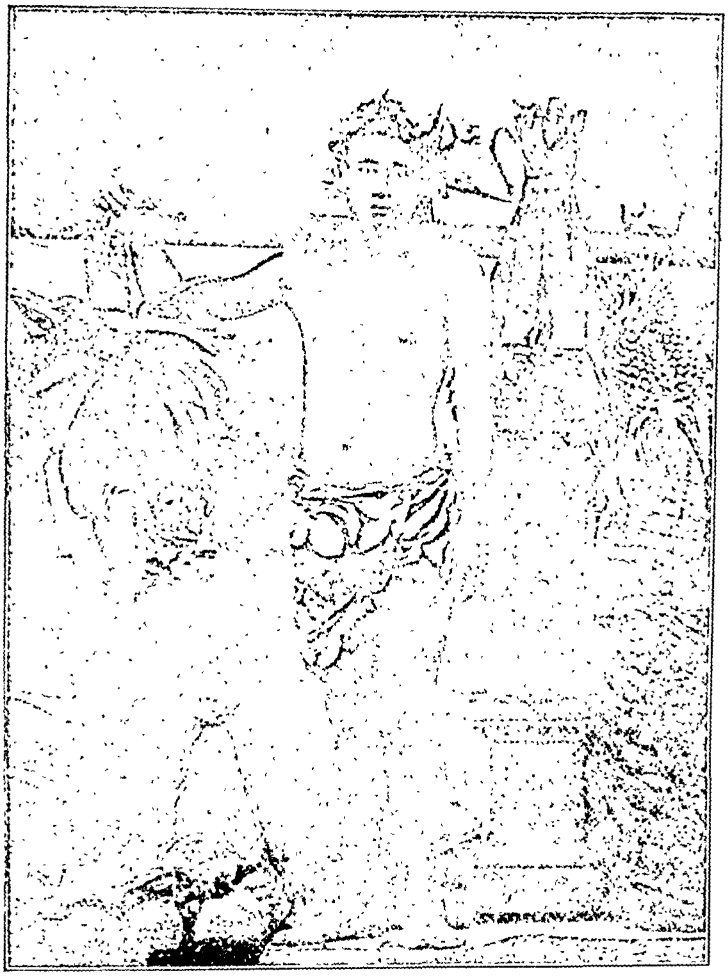

Fig. 1.—Type of Tahitian.

Robbery, stealing and murder are almost unknown; petty thefts, on the contrary, quite common. The people, young and old, are affable, extremely courteous and hospitable to a fault; the family ties strong and extending to the remotest relatives

FRIGHTFUL NATIVE MORTALITY.

The immediate effect of the European civilization on the health and lives of the natives was frightful. On this subject I will let Ariimaitai, a lady of noble birth and mother of the present chief of Papara, speak: "When England and France began to show us the advantages of their civilization, we were, as races then went, a great people. Hawaii, Tahiti, the Marqueses, Tonga, Samoa and New Zealand made a respectable figure on the earth's surface, and contained a population of no small size, better fitted than any other possible community for the condition in which they lived. Tahiti being the first to come into close contact with the foreigners, was first to suffer. The people, who numbered, according to Cook, 200,000 in 1767, numbered less than 20,000 in 1797, according to the missionaries, and only about 5,000 in 1803. This frightful mortality has been often doubted, because Europeans have naturally shrunk from admitting the horrors of their own work, but no one doubts it who belongs to the native race. Tahiti did not stand alone in misery; what happened there happened everywhere, not only in the great groups of high islands, like Hawaii, with three or four hundred thousand people, but in little coral atolls which could only support a few score. Moerenhaut, who was the most familiar of all travelers with the islands in our part of the ocean, told the same story about all. He was in the Austral group in 1834.

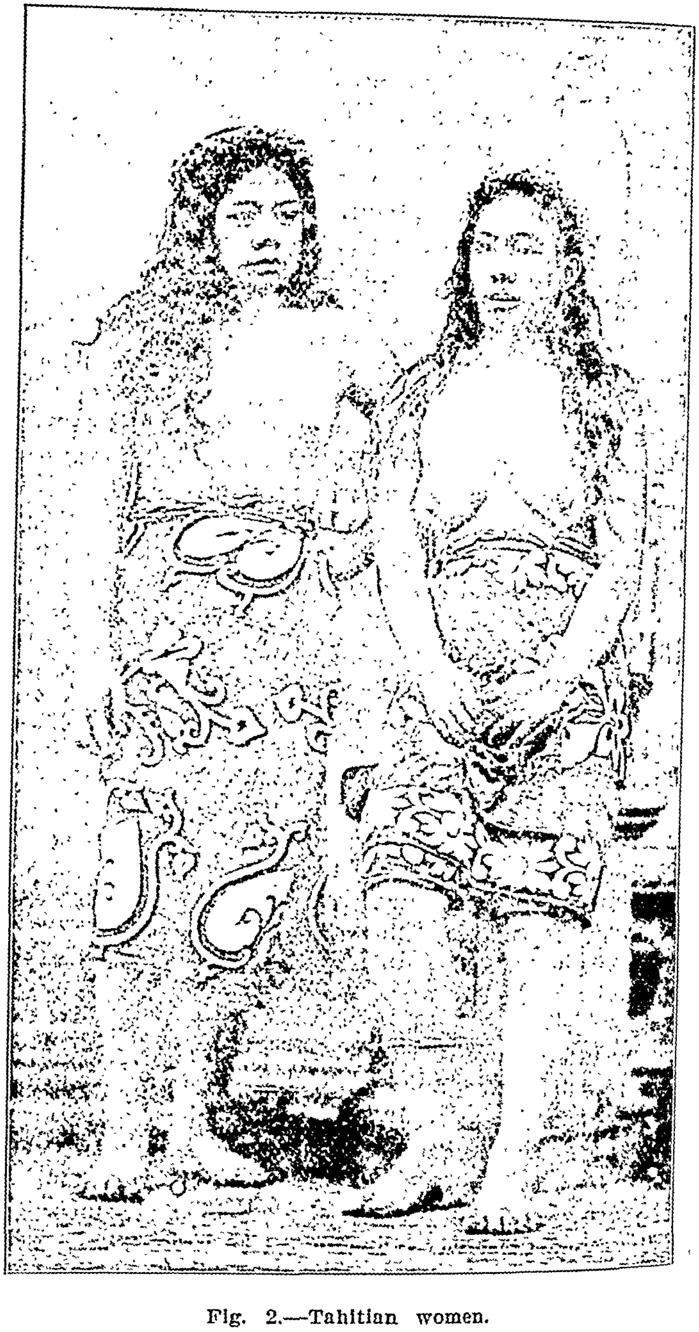

Fig. 2.—Tahitian women.

"At Raivave he found ninety or one hundred natives rapidly dying, where fully 1,200 had been living only twelve or fourteen years before. At Tubuai he found less than 200 people among the ruins of houses, temples and tombs. At Rurutu and Rimitara, where a thousand or twelve hundred people had occupied each, hardly two hundred were left, and while nearly all the men had died at Rimitara, nearly all the women had been swept away at Rurutu. The story of the Easter Islanders is famous. That of the Marqueses is about as pathetic as that of Tahiti or Hawaii. Everywhere the Polynesians perished, and to him it mattered little whether he died of some new disease or from some new weapon, like the musket, or from misgovernment, caused by foreign intervention. No doubt the new diseases were most fatal. Almost all of them took some form of fever, and comparatively harmless epidemics, like malaria, became frightfully fatal when the native, to allay the fever, insisted on bathing in cold water. Dysenteries and ordinary colds, which the people were too ignorant and too indolent to nurse, took the proportions of plagues. For forty generations these people had been isolated in this ocean, as though they were in a modern sanatorium, protected from contact with new forms of disease, and living on vegetables and fish. The virulent diseases which had been developed among the struggling masses of Asia and Europe found a rich field for destruction when they were brought to the South Seas. Just as such pests as lantana, the mimosa or sensitive plant, and the guava have overrun many of the islands, where the field for them was open, so diseases ran through the people. For this, perhaps, the foreigners were not wholly responsible, although their civilization certainly was; but for the political misery the foreigner was wholly to blame, and for the social and moral degradation he was the active cause. No doubt the ancient society of Tahiti had plenty of vices and was a sort of Paris in its refinements of wickedness, but these had not prevented the islanders from leading as happy lives as had ever been known among men."

These are strong words, but they are nevertheless only too true. Civilization brings to savage races curses as well as blessings. The primitive people are more receptive for new vices than new virtues. In 1880 the number of inhabitants had again increased to 13,500, but since that time it has been reduced to 11,000, as shown by the last census. The rapid depopulation of the island was caused by the introduction of new acute infectious diseases, such as measles, whooping cough, la grippe, etc., which among these people was attended by a fearful mortality. It was only last year that an epidemic of measles, a trifling disease with us, claimed several hundred lives and extended to nearly all of the islands of the entire group. The disease that is now threatening the extinction of the race in a short time is pulmonary tuberculosis. The natives are extremely susceptible to this disease, and the small native houses, crowded with large families, are the breeding stations for the infection. The French government has at last recognized the need of taking active measures to improve the sanitary conditions of their colony and protect the natives against the spread of infectious diseases. A corps of three physicians, sent by the French government on this mission, made the voyage from San Francisco to the island on the steamer *Mariposa* with me. The names of these physicians are: Dr. Grosfillez, surgeon major of the first class of the colonial troops; Dr. H. Rowan, a graduate of the Pasteur Institute, and Dr. F. Cassiau, of the clinic of Marseilles. The military surgeon receives an annual salary of $1,500, the two civil doctors $1,200 each. They are under contract for five years. They have been given judicial power to enforce all sanitary regulations they see fit to institute. They will be stationed at different points and will establish a requisite number of lazarettos, something which will fill a long-felt and pressing need.

(*To be continued.*)

THE INFLUENCE OF DENTAL DISEASE ON THE ETIOLOGY OF CERTAIN OCULAR DISTURBANCES.

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That dental caries and its allied processes figure to a considerable degree in the etiology of certain ocular disorders seems to have been generally recognized by those who have made this subject a matter of careful observation. Difficult early dentition, also, has long been considered in the same light, and as far back as 1824, Travers[1] called attention to strabismus as a symptom sometimes arising from this cause. Galezowski,[2] the eminent French ophthalmologist, has, for several decades, enthusiastically supported the theory of dental causation of various eye troubles, and many of the ablest contributions to the literature of this subject are from his pen. So strongly imbued with the teachings of his confrère was Weinberg,[3] that he expressed the belief that during a nine months' dispensary service he saw 188 cases of ocular disturbance dependent on morbid dental changes. Henry Power,[1] in 1883, read a meritorious paper on the subject before the Odontographical Society of Great Britain, and more recently Knies,[4] Bull,[5] Davis,[6] Weill[7] and others of our own country, have contributed valuable data. The text-books of ophthalmology and dentistry in general use, as a rule, however, devote little or no space to its consideration, and the matter does not appear to have received its deserved attention in the deliberations of scientific bodies or in the classroom.

The anatomic relations existing between the alveoli and teeth and the orbit and its contents are so intimate that one can readily appreciate how morbid changes of the one may influence, either by continuity or by so-called reflex manifestation, the functional relations of the other. As concisely indicated by Despagnet,[8] "the same periosteum which lines the orbital cavity extends to the alveolar border of the upper jaw; the mucous membrane of the mouth is in direct continuation with the conjunctiva. Many times the roots of the upper teeth extend directly into the antrum of Highmore, and from this situation disease frequently reaches the orbit through the thin partition of bone. The angular artery and certain veins run almost directly from one region to the other. The same general nervous supply reaches both, not only through the fifth pair, but also through the sympathetic system."

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[1] Trans. Odont. Soc. Gr. Brit., 1883-4, p. 11. (Power.)

[2] Ann. d'Oculist., Paris, 1847, xvii, p. 59; also Jour. d'Oph., i, p. 606; also Rev. gén. d'Oph., October, 1888.

[3] Recueil. d'Oph., 1882, p. 441.

[4] Dis. of the Eye, 1895.

[5] Internat. Dent. Jour., March, 1898.

[6] Dent. Rev., 1899, p. 979

[7] Pa. Med. Jour., Sept., 1900.

[8] Recueil. d'Oph , July, 1900. (Abst. Ann. of Ophth., 1900.)

Among the ocular disorders that various writers have ascribed to dental disease as a causative factor are orbital cellulitis and abscess, conjunctivitis, keratitis, corneal ulcer, iritis, scleritis, papillitis, mydriasis, lachrymation, amaurosis, amblyopia, strabismus, ptosis, interference of accommodation and paresis or spasm of the several muscles of the eye and lids.

According to statistics compiled by Schwendt,[9] of 44 cases of orbital cellulitis, more than 15 per cent. resulted from dental caries. Hirsch[10] has since collected 25 cases of orbital abscess of dental origin, and other writers, notably Hildreth,[11] Burnett,[12] Vossius,[13] Fage,[14] Snell,[15] Juler,[16] and Galezowski,[17] have reported representative cases of the same disease of like origin. Burnett's case followed an unsuccessful attempt to extract an upper canine tooth, and resulted in total loss of vision. Snell's case, following the extraction of two upper decayed teeth for alveolar periostitis in a girl of 14, terminated fatally, and total destruction of the eye in Juler's case necessitated enucleation.

An additional case of abscess of the orbit, which fortunately had a more favorable outcome than those just cited, and which resisted treatment until attention was directed to the teeth, came under my care early in the year 1899.

Mr. H., aged 28, farmer, had been suffering intensely from pain in the region of the right eye for nearly two weeks. The lids were markedly edematous, the eye protruding and deeply injected, the pupil dilated, and the eyeball but feebly movable. Iced applications, leeching, and hypodermatic injections of morphia had but temporarily relieved the pain and given the patient little sleep, the inflammatory process meanwhile increasing in intensity. On the second day under observation it was noted that the cheek on the corresponding side was swollen, and questioning elicited the information that the patient had suffered periodically for several weeks from a diseased tooth. Extraction of a badly decayed molar was immediately followed by the escape of a quantity of pus, and antiseptic treatment brought about a rapid amelioration of the orbital and ocular symptoms.

Numerous cases of ocular disorders of reflex dental origin have been reported from time to time. Cafe,[18] DeWecker,[19] Sloggett,[20] Brucke,[21] Gaine,[22] Alexander,[23] DeWitt,[24] Allport,[25] Turner,[26] Coleman,[26] Stevens,[27] and Widmark[28] have recorded instances of amaurosis in which dental disorders have figured as important causative factors. Power, in his article cited above, reviews a typical case occurring in the practice of Sir William Lawrence of a man 30 years old, who suffered blindness for a period of thirteen months, which was restored by the extraction of an upper first molar. Examination of the tooth revealed a small splinter of wood, one-fourth of an inch long—undoubtedly the fragment of a toothpick—that had traversed the center of the decayed root, and had been retained. Palido,[29] Park,[30] and Despagne[8] have also cited cases of amblyopia due to dental disease.

Interference with the normal accommodation of the eye has been traced to morbid dental changes by Schmidt-Rimpler,[31] Ely,[32] Nuel,[33] Galezowski,[34] Knies,[35] Dunn,[36] and Bull.[37] Schmidt-Rimpler, in the examination of 92 patients suffering from dental disease, found the range of accommodation lessened in 78 per cent. Mydriasis is another condition frequently resulting from the same cause. Galezowski[38] was so impressed with this fact that he expresses the belief that dental changes are responsible for eight of ten cases of third nerve paralysis, instead of its being an invariable index of syphilis, as is generally supposed.

Several months ago Mrs. F., aged 38, was sent to me by her family physician. She had complained of severe headaches and inability to read or sew for a period of eight or ten weeks. The right pupil was widely dilated and there was no response to light stimulation. Patient was wearing weak convex lenses which had been "fitted" by a local optician. Examination revealed compound hyperopic astigmatism of both eyes, and the correction was ordered for constant use. Ophthalmoscopic examination was negative. There was no history of syphilis. Potassium iodid had been administered for several weeks in increasing doses to a maximum of 200 grains per diem, with no improvement. Examination of the teeth demonstrated a sensitive upper molar which presented a cavity of considerable proportions in which rested the remains of an amalgam filling. The tooth was properly treated, and within a fortnight the mydriasis had entirely disappeared

Ely,[39] Gill[40] and Desmarres[41] have reported like instances where the mydriasis disappeared with appropriate dental interference.

Various muscular anomalies have been attributed to dental disease by Hancock,[42] who cites a case of divergent strabismus and ptosis; Boyd-Wallis,[43] blepharospasm; Terrier,[44] "obstinate spasmodic contraction of the motor muscles of the eyelid"; Mumery,[45] strabismus; Power,[46] bilateral ptosis; Ely,[32] cases of paresis of orbicularis with diplopia and paresis of a rectus and the ciliary muscle; Juler,[47] "persistent jactitation of eyelids"; Hutchinson,[48] cases of spasm of eyelid and lagophthalmus, and Snell,[49] proptosis.

Many of the common inflammatory disorders, both extraocular and intraocular, seem to depend on dental causation in a fair percentage of cases. During the past two years I have seen two of the former—one of episcleritis—the other conjunctivitis—accompanied by supraorbital pain, ciliary tenderness and simulation of sympathetic irritation.

A man of 48 years came to my clinic presenting a well-marked localized injection of the sclera of the left eye. This condition had developed, according to a statement volunteered by the patient, simultaneously with an attack of toothache

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9. Inaug. Dissert., 1882.
10. Prager med. Woch., 1894, p. 164.
11. Chicago Med. Examiner, April, 1866.
12. Arch. Oph., 1885, Nos. 2 and 3.
13. Graefe's Arch., 1884, xxx, p. 157.
14. Ann. d'Oculist., Paris, November, 1893.
15. Trans. London Oph. Soc., 1890.
16. Brit. Med. Jour., Oct. 19, 1895.
17. Recueil. d'Oph., 1882, p. 441.
18. Lanc. Française, Aug. 22, 1889.
19. Ann. d'Oculist., Paris, 1855, p. 130.
20. Ann. of Oph., vol. ix, ii, p. 251.
21. Ann. d'Oculist., Paris, 1856.
22. Brit. Med. Jour., cclxi, p. 683.
23. Monatsblätt. f. Augenh., 1868, vol. iv, p. 42.
24. Amer. Jour. Med. Sci., 1868, n. s., cx, p. 382.
25. The Journal A. M. A., Dec. 8, 1883.
26. Trans. Odont. Soc. Gr. Brit., 1884, p. 57.
27. Internat. Dent. Jour., March, 1891.
28. Ann. d'Oculist., Paris, Sept.-Oct., 1888.
29. Ann. Univ. Med. Sci., 1889, p. 129.
30. Ann. of Oph., Jan., 1893.
31. Graefe u. Saemisch Handb. d. ges. Augenh., 1877, vii, p. 72.
32. N. Y. Med. Rec., March 11, 1882.
33. DeWecker et Landolt, Traite, 1877, iii.
34. Recueil. d'Oph., 1882, p. 441.
35. Dis. of the Eye, 1895.
36. Amer. Jour. of Oph., Oct., 1891.
37. Internat. Dent. Jour., March, 1898.
38. Rev. gen. d'Oph., Oct., 1888.
39. N. Y. Med. Rec., March 11, 1882.
40. Kansas City Med. Rec., Sept., 1894.
41. Med. Press., Nov. 28, 1883.
42. Lancet, 1859, p. 80.
43. Trans. Odont. Soc. Gr. Brit., xviii, p. 173.
44. Recueil. d'Oph., 1876.
45. Trans. Odont. Soc. Gr. Brit., 1880, p. 252.
46. Lancet, April 9, 1881.
47. Lancet, 1884, p. 709.
48. Brit. Med. Jour., Dec. 28, 1895.
49. Trans. London Oph. Soc., x, p. 51.

several months previously. The further observation had been made that, as the odontalgia moderated in severity the eye symptoms gradually disappeared only to return when the dental disturbance recurred. So evident was the connection that the patient suggested the relationship at the first visit. On examination, the man was advised to have several roots extracted, and on submitting to the operation, was permanently relieved of the ocular trouble.

The other case was that of a girl, 16 years old, who came under my service at the Illinois Charitable Eye and Ear Infirmary. Six months previously she had been under my care on account of a scissors blade injury of the right eye, which destroyed the vision and left a scar extending almost entirely across the cornea. On her appearance at the infirmary she complained of intense supraorbital neuralgia and pain in the left eye so severe that she had been unable to sleep but little for forty-eight hours. The conjunctiva was deeply injected and there was ciliary tenderness and diminution of the power of accommodation. So distressing were the symptoms that sympathetic ophthalmitis at once suggested itself, and the patient was put under careful observation. The following day a slight swelling of the left cheek was noticed; the patient was sent to a dentist with the result that on proper treatment being applied to several upper teeth the ocular symptoms were promptly and permanently relieved.

Wright,[50], more than thirty years ago, published the history of a case of "sclerotitis" with profuse lacrymation that resisted treatment until a carious tooth was extracted, "when the inflammation subsided as if by magic." Ely,[32] relates a case of ulcer of the conjunctiva, undoubtedly of dental origin; White,[51] one of keratitis; Marlow,[52] three of "corneal congestion"; Hern,[53] scleritis; Nuel,[54] a case of conjunctivitis and ciliary injection; Colyer[55] and Roberge,[56] each one of corneal ulcer; Patterson,[55] a case of conjunctivitis with lacrymation; Galezowski,[57] Herman,[58] Despagnet,[59] Hirsch,[60] each a case of optic neuritis, and Feuer,[61] two of the same; Sous,[62] a case of keratitis punctata and choroiditis; Bull,[37] one of phlyctenular ulcer; Gill,[63] iritis and scleritis; and Milliken,[64] a case of iritis.

The number of cases which a review of the literature demonstrates, and my observations in the cases cited, leads to the belief that in dental disease is to be found an etiologic factor of more than passing importance in many ocular disturbances, and suggests the necessity of a thorough examination by a competent dentist in those instances presenting uncertain causative phenomena. A painstaking examination and intelligent surgical treatment will, in many cases, assist in elucidating various etiologic manifestations, and bring about permanent relief of the existing ocular trouble.

100 State Street.

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50. West. Jour. Med., Aug., 1869.
51. Trans. Odont. Soc. Gr. Brit., 1884, p. 57.
52. N. Y. Med. Jour., April 24, 1888.
53. Ophth. Rev., Oct., 1889.
54 DeWecker et Landolt, Traite, 1887.
55. Trans. Odont. Soc. Gr. Brit., 1890 91, p. 183.
56. L'Union med. du Canada, March, 1897.
57. Rev. gen. d'Oph., 1888.
58. Centralblat. f. prac., Aug., Dec., 1893.
59. Jour. de Med., Paris, July 30, 1893.
60. Wien. med. Wochensch., 1893, vol. xxxiv.
61. Ann. of Oph., 1895.
62. Jour. de Med. de Bordeaux, 1896.
63. Kansas City Med. Rec., Sept., 1894.
64. Arch. of Oph., March, 1900.

No Race Suicide in Texas.—The *St. Louis Medical Review* declares that the birth rate in Texas is almost twice that of the death rate, and declares that the population of Texas is growing at an astonishing rate. In one particular county the deaths exceeded the births, which was explained by the fact that that county included San Antonio, a health resort for consumptives, many of whom die.

Clinical Report.

TENIA NANA: REPORT OF TWO CASES.

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FORT PORTER, BUFFALO, N. Y.

The following cases are reported as of interest, because the parasite is considered very rare in this country:

CASE 1.—Private J. W. M., Company M, First Infantry, admitted Jan. 14, 1904. Patient states that he served in the Philippines from May, 1901, until April, 1903, and that he contracted amebic dysentery in December, 1903, from which he never fully recovered, remaining pale and weak with capricious appetite and irregular bowels; that the passages have averaged two to four a day, and have usually contained mucus; that occasionally the diarrhea has ceased for a few days, and he has then been troubled with constipation, and that he has had frequent attacks of pain in the upper part of the abdomen, at times so severe as to cause profuse sweating.

Examination on Admission.—Nothing worthy of note was found except a fairly well-marked anemia with thick pasty facies. Body fat is well retained, but patient appears to have lost much strength, and is unable to get through the day's work satisfactorily.

Microscopic examination of the stools showed numerous round and slightly oval ova about 35 microns in diameter, having a clear outer circle without radiations, but occasionally marked by irregular wavy tracings and showing in the center four parallel lines, the two outer with a slight angle and thickening at about one-third their length, and the two central ones with a slight dot at the same point, but nearly straight.

Treatment.—Male fern followed by castor oil brought away about 50 worms measuring 10 to 15 mm. in length, the head having a retractile proboscis with a single row of about 24 hooklets, and back of these 4 suckers. The segments numbered from 50 to 150, and increased greatly in size toward the tail, those fully developed containing myriads of ova and measuring in width several times their length.

CASE 2.—Private F. A. F., Company I, First Infantry, admitted Jan. 27, 1904. Diagnosis staphylococcus infection of trivial wound on the little finger of the right hand. He served in the Philippines from February, 1902, until May, 1903, and while there had two short attacks of diarrhea. He has been well since he returned to the states, except for occasional abdominal pain, which he attributed to indigestion.

Examination.—The physical examination was negative.

The routine examinations of the stools as made for all patients showed ova as in the first case, and the same treatment brought away over one hundred worms. Owing to the difficulty of recognizing these minute cestodes in the stools, I have no doubt that many hundreds were present in each case.

Comments.—The method which so far has proved most satisfactory in finding the parasites is to dilute the stool with a considerable quantity of water, and then to run it out in a very thin layer on a large plate of window glass having a black background and placed in a strong light, the examination being made with a large reading glass. The worms appear as very minute translucent or opalescent shreds not unlike mucus, and the greatest care is required lest they be overlooked. The ova are found with the microscope much more easily than the worms themselves, a two-third objective being ample after one becomes familiar with their appearance. The spread should be very thin, and but little light admitted from the condenser.

Gray Hair Versus Baldness.—Marcel Baudouin of Paris has made a discovery. He will not announce what it is until the consensus of opinion has confirmed the assumption which he has recently proclaimed that persons whose hair turns prematurely gray never grow bald, while persons who are bald never are prematurely gray. If this assumption be confirmed he thinks he can explain the reason for the facts observed.

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LET YOUR INFLUENCE BE FELT.

Every member of the medical profession should be sufficiently interested in the Pure Food Bill, now before the United States Senate, to take the trouble to write to the two senators of his state urging them to vote for it. There is an opportunity for the profession to make itself felt in a good cause. Why not do it? It should not be forgotten that, in this instance especially, delays are dangerous.

Read the bill on page 910, and then act.

THE CAUSE OF YELLOW FEVER AGAIN.

The investigations of Reed, Carroll and Agramonte into the causation of yellow fever, which are fresh in the minds of all, seemed to be so universally convincing that we naturally expected any further researches in that domain to follow along the lines laid down by them, and to be concerned with the nature of the ultramicroscopic virus which their experiments indicated as the causative agent of this disease. Interest in the various bacteria described by different observers as the cause of yellow fever has waned since the publication of the experiments of the American Commission and it is therefore somewhat surprising to find new evidence being brought forward now for the *Bacillus icteroides* of Sanarelli and to hear the statement made that this is recognized by almost the whole scientific world as the cause of yellow fever. Ivo Bandi of Brazil gives in the *Zeitschrift für Hygiene*[1] the results of his studies and experiments in this field and asserts that they confirm in all essentials the views of Sanarelli. The article in question is written in an unfortunately partisan spirit, reminding one of Sanarelli's attitude toward his opponents, but the researches embodied in it are interesting and merit attention, though it is a question whether they materially strengthen the weak points in Sanarelli's position.

It will be remembered that the claim made by Sanarelli[2] that he had discovered the cause of yellow fever in the *Bacillus icteroides* was based on the following assertions: It was found in 58 per cent. of the bodies of patients dying of yellow fever; had special cultural characteristics; could be used to produce experimental yellow fever in animals; the serum of immune animals and convalescent patients agglutinated the bacillus, and that of immune animals had prophylactic and therapeutic properties against yellow fever; the germ-free filtrate of cultures produced typical yellow fever in man.

Many investigators assert that they have confirmed these statements of Sanarelli; nevertheless the organism has never won for itself an undisputed place. The objections urged against Sanarelli's assertions are that the *Bacillus icteroides* can be isolated in only a few cases, and then in very small numbers—even Sanarelli's 58 per cent. is a small percentage. Investigators working with cultures obtained from Sanarelli or his followers are unable to repeat the former's experiments as to characteristic lesions produced in animals by inoculation or as to agglutination. The cultural peculiarities are found to be variable and such as might belong to a member of the hog cholera or colon groups. The human experiments of Sanarelli were not adequately controlled, for as Novy[3] pointed out, we know nothing of the effect of intravenous injections of filtered cultures of typhoid or colon bacilli. A strong argument against the causative rôle of this organism is that it is very resistant to cold, enduring, without loss of virulence, three days of freezing, while yellow fever is a disease of warm climates and vanishes with the first frost.

The researches of Bandi should, if they are to justify the assertions made in the opening paragraphs of his article, serve to refute the above objections, and this he endeavors to make them do. To the objection that the *Bacillus icteroides* can so seldom be isolated and when isolated is found in such small numbers, he answers that it resembles the tetanus bacillus in producing a very powerful toxin while multiplying only to a limited extent; yellow fever is a toxemia. Yet he was unable to prove the presence of such a toxin by injections into animals of the blood and organs from the bodies of yellow fever patients, although these animals are susceptible to the *Bacillus icteroides.* Novy had already found that it was necessary to use an enormous dose, 20 c.c., of the filtered culture, to cause death in a guinea-pig in twenty-four hours. Bandi succeeded in isolating the organism in about as large a percentage of cases as did Sanarelli, twelve out of twenty autopsies. Its habitat within the body, however, he was unable to discover, for there are no characteristic focal lesions which can be attributed to it. His experiments on dogs were very successful and constitute the most striking part of his paper. By intravenous injections in dogs, he produced all the typical symptoms of yellow fever, with the exception of jaundice, and after death found fatty degeneration and necrosis of the liver cells, more extensive than that produced by any known organism.

Opposed to these experiments of Bandi are those of Novy, Agramonte[4] and Havelberg,[5] all of whom found no lesions in the organs of dogs injected with the bacillus in question which could not be produced by other organisms, as, for instance, certain strains of *Bacillus coli.* Bandi finds, contrary to the experience of Sanarelli, that the blood of yellow fever convalescents and immune animals does not agglutinate the *Bacillus icteroides,* which in this respect resembles the Klebs-Loeffler bacillus. Havelberg, on the contrary, found that it was easy to produce an agglutinative serum in animals, but that the serum of yellow fever patients had no such property. His criticism of the work of Reed, Carroll and Agramonte, based on his own failure to produce yellow fever experimentally in human beings by the bite of the *Stegomyia fasciata;* on the assertion that the distribution of the stegomyia does not entirely correspond to that of yellow fever; on the history of epidemics which seemed to have no relation to this insect; on the apparent conveyance of yellow fever through infected clothing, etc., remind one of the arguments used at first against the theory, now universally accepted, of the agency of the mosquito in the spread of malaria. A more serious objection is that which he makes to the experimental production of yellow fever in man, by the injection of filtered serum, on the ground that the filter used by Reed and Carroll was a Berkefeld, which allows the *Bacillus icteroides* to pass through. To this the answer may be made that the filter in question had been tested and found to hold back all demonstrable bacteria, nor would an exposure to a temperature of 55 degrees for ten minutes be sufficient to kill the bacillus of Sanarelli, which is as resistant to heat as the typhoid bacillus, yet this procedure was sufficient to destroy the virus in the serum, according to Reed and Carroll. The work of Bandi can not be regarded as having strengthened the cause of *Bacillus icteroides.*

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[1] Zeitschrift f. Hyg., 1904, No. 1, p. 81.

[2] Ann. d. l'Inst. Pasteur, 1897, pp. 433 and 733.

[3] Medical News, 1898, pp. 331 and 360.

[4] Ibid., 1900, p. 249.

[5] Berliner klin. Woch., 1903, pp. 705 and 735.

SURGICAL TREATMENT OF MOVABLE KIDNEY.

A continued interest in this subject is shown by the number of clinical studies of large series of cases which are reported each year. Movable kidney is undoubtedly very common, and the symptoms which co-exist with such movability, or are caused by it, are sources of discomfort and disability to many women. That the condition is not an easy one to treat successfully is shown by the differences of opinion as to the best method of treatment. Since nephropexy was introduced by Hahn in 1881, various opinions have been expressed with regard to the advisability of operation. At first, as is often the case after the introduction of a new operation, many surgeons were enthusiastic in stitching up every movable kidney they could find. This operation furore led to more careful examination of cases, and showed how prevalent the condition is, some observers estimating that sixty or eighty per cent. of all women have movable kidney. Several interesting papers have appeared in American journals during the past year which have added to our information with regard to this subject. Larrabee[1] gives a thorough clinical study of one hundred and twelve cases of movable kidney from the out-patient department of the Boston City Hospital. His statistics with regard to the frequency, etiology, symptoms, etc., make a valuable contribution. Treatment by operation or mechanical support was considered unnecessary in eighty-seven out of one hundred and twelve cases. Many patients were not informed of the presence of the anomaly, and when this was inadvertently done in one case symptoms promptly appeared.

Twenty-five patients were advised to wear swathes to support lax abdominal walls, the symptoms being attributed to enteroptosis rather than to the movable kidney alone. In two cases in which operation had been previously done, neither patient had been relieved. In one an unsuccessful nephropexy was followed by nephro-ureterectomy, which also failed to give relief. Larrabee did not advise surgical treatment in a single instance, and he believes that the temporary use of a bandage may tide a patient over poor health or debility until she has returned to normal health and flesh, when the symptoms usually cease.

Aaron[2] reports four hundred and forty-two cases of movable kidney treated without surgical intervention. He gives some specially valuable suggestions as to the methods of fitting supporting bandages, and believes that ninety to ninety-five per cent. of patients can be cured by a properly fitting support.

He emphasizes the importance of mapping out the position not alone of the kidney, but of the liver, stomach and other abdominal organs, which are often also displaced and in need of support. He emphasizes the indifference of many instrument makers and dealers in supporting bandages, and states that in some cases he has been obliged to have as many as five different bandages made for a single patient before a satisfactory one was obtained. Like Larrabee, he emphasizes the frequency with which enteroptosis co-exists with movable kidney, and believes that this is always the case when gastro-intestinal and nervous symptoms are present. He approves of operation only in cases of Dietel's crisis from the kinking of the ureter.

Goelet[3] takes an opposite view from these observers, and apparently believes that practically all cases of movable kidney should be operated on. He points out many reasons why the operation is frequently a failure, as well as the post-operative influences which tend in this way. Among points of importance mentioned are: Failure to detach completely the fatty capsule on the posterior surface of the kidney, which is left adherent to the colon and is thus dragged on; improper insertion of sustaining sutures or their too early removal or absorption, and attachment too low down are also men-

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1. Boston Med. and Surg. Jour., 1903, vol. cxlix, p. 586.
2. American Medicine, 1903, vol. vi, p. 893.
3. New York State Jour. of Med., 1903, vol. iii, p. 497.

tioned. Among post-operative influences causing failures he mentions vomiting or coughing after anesthesia, which loosen the attachment, turning to the opposite side, assuming an erect position or undertaking some exertion too early, neglect to adjust support for relaxed abdominal walls after operation or to correct digestive disorders. These suggestions are all of much importance in obtaining satisfactory results.

The different views of these writers may lead to confusion in the minds of some as to what course should be followed in these cases. The papers of Larrabee and Aaron emphasize an important fact which has often been brought out by other observers, the frequent co-existence of general enteroptosis with movable kidney, and that the symptoms may be as much due to the general condition as to the movability of any one special organ. Many prominent surgeons are inclined to agree with these internists that operation is not to be advised in the majority of cases. Keen has shown in how large a percentage of cases the results of operation are not satisfactory, and Morris of London, whose experience in renal surgery is probably as great as that of any living surgeon, says that when movable kidney is associated with enteroptosis, no operation should be performed. All must agree with Aaron that operation is advisable in all cases in which crises of pain occur, and we believe that by careful observation other cases can be selected in which the symptoms are chiefly caused by renal movability, and in these cases operation is, no doubt, advisable.

Valuable as are Goelet's suggestions as to the causes of failure from faulty operative technic and post-operative influences, we do not believe that failure to fix securely accounts by any means for the failure to relieve symptoms in all cases. The opinions of eminent surgeons whom we have quoted seem sound, and their failure to obtain satisfactory results certainly can not be attributed to faults connected with the operation, but are probably due to general enteroptosis; the vague discomforts caused by sagging, not only of the kidneys, but of many of the other abdominal viscera.

THE PURE FOOD AND DRUG BILL.

If there was ever a question before the national legislature in which the medical profession should be interested it is the Pure Food bill now before the United States Senate. We are sure all who read the bill, which we have already published in part and which we reproduce this week in full,[1] will at once realize its vast importance. The difference between the measure as it passed the House and the substitute reported by the Senate Committee on Manufactures is clearly defined in Senator Heyburn's letter to Dr. Reed,[1] and relates to questions of administrative detail rather than to the principles involved.

The hearings on this measure before the Senate Committee on Manufactures revealed some very interesting facts. Thus the attempt made in the bill to establish the United States Pharmacopeia as the standard of purity for drugs was combated by the proprietary medicine men with the representation that the United States Pharmacopeia was published only every ten years; that many new preparations, on which it was necessarily silent, came into use during each decennial interim and that, consequently, the United States Pharmacopeia could not be made available as a standard. This representation, naturally enough, only suggested the necessity for an additional provision, which the committee promptly framed, to protect the public from these rapidly multiplying "inventions." It was but natural, therefore, that the strictly sordid commercial interests should turn fiercely against the entire measure. The proprietary medicine trust was deeply if not vitally interested. It dropped its policy of direct representations to the committee and took recourse to its customers, the retail druggists, who, scattered all over the country, have been instigated to write letters and send telegrams to their respective senators protesting against the passage of the bill. The pressure in this instance is that of credit, which the large manufacturing concerns are in position to extend or not to their patrons, who, by counter prescribing, vend these dangerous nostrums directly to the public.

And that these nostrums, many of them at least, are dangerous in both a positive and negative sense, was also made apparent at the hearing. The testimony was direct and positive that a number of these new "inventions" were essentially poisonous, while others, innocuous so far as their ingredients were concerned, were dangerous because of their inefficiency. It was broadly stated that a number of them, by substitution of constituent elements, were frauds, a fact long and painfully known to the medical profession. The greatest danger of all, however, is the fact that the formulæ of many of these proprietary compounds are variable. As a consequence, when the Senate committee suggested that these formulæ ought to be published, or at least registered, and that it would be only fair to hold the manufacturers to their own standards, the objection was urged—the startling admission was made—that such a course would be ruinous to the large commercial interests involved. It thus becomes apparent that, in prescribing unofficial preparations physicians are very liable to be prescribing only a name with no guarantee that that name stands for anything definite either in number, quantity or quality of ingredients. Facts of this kind have long been known or at least surmised by physicians and their confidence in modern pharmacy has been almost shattered. It is true that there are many excellent pharmaceutic houses whose products have met the expectations of the profession for many years, which stand to-day on the firm foundation of well-grounded character and in which the profession has full confidence. These houses can not be injured either by this discussion or by the proposed law. They, however, owe it to themselves, at this particular crisis, to lend their best efforts in securing the passage of the pending bill, which, if enacted into law, will protect them by elevating the character of American pharmaceutic products in general. There is nothing in the proposed law to which any honest pharmacist can object. The protests of others ought to have but little weight with the Senate.

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[1] See pages 910-911.

Beside the proprietary medicine concerns, there are the vast commercial interests involved in food adulteration and the opposition from this source and from the still more active hostility of the liquor interest working in behalf of compounded and blended drinks under various names has supported a powerful lobby ever since the beginning of the consideration of the bill.

The duty of the medical profession at this juncture is obvious. Every physician should bring his utmost influence to bear on the question. Whether he is a committeeman appointed for the purpose or not, he ought at once to write the strongest possible letter to each of his United States senators; he ought to get others, both within and without the profession, to do likewise, and especially ought he to get his druggist to co-operate. The influence of the physicians in a community on the druggist ought to be at least equal to that of the patent and proprietary medicine men. He ought to put himself in touch with the member of the National Auxiliary Congressional and Legislative Committee for his county and co-operate with him to the fullest extent. The issue is fairly joined between the proprietary medicine men and the reputable medical profession. It remains to be seen which of the two can command the most attention of the United States Senate.

THE THERAPEUTIC VALUE OF OLIVE OIL IN GASTRIC AND INTESTINAL DISEASES.

The space devoted to the therapeutic uses of olive oil in most text-books is very small, reference usually being made to the nutritive value of the oil and its use by some physicians in gallstone attacks. Rutherford[1] and his colleagues at the Army General Hospital in San Francisco have recently given an extensive trial to this medicament in cases of chronic dysentery with excellent results. Most of the cases were long-standing ones, in which the various recognized remedies for the disease had been tried over long periods of time with unsatisfactory or only partly satisfactory results. The oil was given in very large doses over long periods of time; beginning with doses of thirty cubic centimeters three times a day, the dose was gradually increased to ninety cubic centimeters three times a day. At first it was necessary to disguise the taste of the oil by mixing it with milk, but the patients soon acquired a toleration to or even a strong liking for the oil. Of the first twenty-eight completed cases under this treatment, seventeen returned to duty, and only two of these had any evidences at all of dysentery. The remainder were either discharged improved or passed from notice. Rutherford regards the results as being due in large part to the effect of the oil on the biliary secretion. The bile is increased in quantity and acts in a threefold manner; it favors the absorption of fats, stimulates peristalsis, and acts as an intestinal antiseptic. This is shown by the presence of an increased amount of bile in the feces, the cessation of signs of fermentation and putrefaction, and the general systemic improvement.

Paul Cohnheim,[2] who has been a consistent advocate of the use of olive oil in certain diseases of the stomach and duodenum, has also recently published a series of cases bearing on this subject. He advises the use of oil, particularly in cases of pyloric stenosis due to spasm of the pylorus from fissures or small ulcers. He has used it also in cases of stenosis from contracted ulcer or perigastric adhesions with a good degree of success, and even in malignant stenosis, when not too far advanced, he has found it of value. The main symptom which he regards as an indication for the use of the oil is a burning, boring pain radiating from the epigastrium upward and laterally, and occurring from two to four hours after eating. This he regards as one of the most constant symptoms of gastric ulcer or fissure. In most of his cases there were also hyperchlorhydria and definite dilatation of the stomach. The advantages of the oil are many; it relieves cramps, it lubricates the opposing surfaces of the ulcer or fissure, it reduces the hyperacidity, and it acts as a food. Cohnheim advocates the use of the oil in one large dose the first thing in the morning before food has been taken. The dose which he usually gives is from fifty to one hundred cubic centimeters. The oil is heated to the temperature of the body, and the patient lies on the right side for fifteen or twenty minutes after taking it, food being abstained from for one hour. Many patients come to like the oil, and the only unpleasant feature, a raspy feeling of the gums, may be relieved by a pinch of salt, a taste of cognac or a peppermint drop.

Rutherford advises the use of strictly pure olive oil; Cohnheim makes no mention of this, so it is fair to assume that he considers the ordinary olive oil of commerce to answer every purpose. It is probably rare that any adulterating agent is used except cotton-seed oil, of which so much is said. Many samples of alleged olive oil from Europe have been found to be mostly cotton-seed oil, which has been sent from the United States to be shipped back across the water in fancy bottles. Since it is necessary to use a good grade of the adulterant in order to pass it off as olive oil, there is little danger of its containing any injurious fatty acids or other accidental substances. The cotton-seed oil itself is similar to olive oil in effect, but some authorities think it of less therapeutic value. Since it is much cheaper than olive oil, experiments would be of value to determine its standing as a food and as a medicinal agent. For the present, however, while there is no reason for the apprehension that is felt regarding the adulteration of many foods and drugs, it seems sensible for one who is pretending to give olive oil to see to it that olive oil is really given and not cotton-seed oil.

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[1] American Medicine, vol. vii, No. 11.

[2] Zeitschrift für klinische Medizin, vol. xlii, Nos. 1 and 2.

THE PNEUMONIA DEATH-RATE.

The changeable weather of these last few weeks after the severe winter has caused a lowering of resistive vitality in practically all weakened individuals, which has been followed by an alarming increase in the number of deaths from pneumonia in nearly every city in the country. There seems no doubt that the disease is much more prevalent and even more fatal than it has been any time during the past decade, at least. At the same time there is no question that pneumonia is now recognized much more surely than was the case even ten or fifteen years ago. This is especially true as regards children. And it must not be forgotten that a large proportion of the present death-rate from pneumonia is due to deaths of those under five years of age. In the olden times a child died from measles or whooping cough that now dies from bronchopneumonia, complicating measles or whooping cough. The same thing is true for other infectious diseases of childhood. Among adults, too, there is no doubt that in many cases, especially among the old, death was attributed to an affection of the heart or to a complication of diseases or to the nephritis that is so often the underlying reason for the lowered resistive vitality on the basis of which the pneumonia develops rather than to the terminal pneumonia which now figures so prominently in these statistics.

We would not wish to discourage in any way the laudable efforts of boards of health to decrease if possible the death-rate from pneumonia, but we cordially deprecate the present scare-headlines in newspapers, which have proved so disheartening to so many patients who would otherwise have had the courage to face their pneumonia without undue shrinking. Everyone knows how important, in diseases of the lungs particularly, is tranquillity of the patient's mind. Under present circumstances it is very difficult to secure this. In many cases no amount of reassurance by the physician will undo the lamentable effect of the discouragement produced by pessimistic newspaper discussions of pneumonia.

Even at the present time, it must not be forgotten that pneumonia is of itself not an especially fatal disease. As has been very well said, the prognosis of pneumonia in patients who are over fifteen and under fifty depends very much on what constitutional dyscrasias the patient labors under when the pneumonia attacks him. f there is an affection of the heart the patient is almost ably doomed. If there is an affection of the kid- atters not what treatment be employed, it will only be by the most fortunate chance that the patient will survive. If the patient has had an affection of the lungs, the pneumonia may be recovered from, but it is almost inevitable that the patient will have subsequent exacerbations of the previously existing pulmonary trouble. It is these three complicating factors that make pneumonia so serious a malady, and not the pulmonary affection itself in spite of all the talk about it.

It is well understood that patients suffering from heart or lung or kidney affections, do not stand continued cold well. As a result of this, we have many more in our population with lowered resistive vitality this spring than has been the case for over a quarter of a century before. It is this that has caused the increased mortality of pneumonia. Doubtless in many of the large cities influenza prevails, and the depressing effect of this disease makes the prognosis of pneumonia especially unfavorable.

There are certain other factors at work which serve to explain and minimize the appalling notion that might be gathered from pneumonia statistics, and these in the present state of the public mind should, it seems, be emphasized.

Many of our people have grown accustomed to taking depressant drugs of various kinds for the slightest pain or ache, and these have undoubtedly had an effect, especially on sufferers from heart and kidney disease. If the increase of advertisements can be considered as evidence—and students of the psychology of advertising are quite ready to think so—then stimulants are being used more commonly in this country than before. This does not mean necessarily to excess, but the moderate, regular drinker is much less likely to recover from pneumonia than the man who has never been accustomed to take spiritous liquors except for special reasons at longer intervals.

It would seem advisable at the present moment for physicians to keep many of these considerations before the public in order to prevent the evil effects of too much scare-head sensationalism with regard to pneumonia fatality. Patients whose resistive vitality is distinctly lowered by the severe winter just passed must be warned of the dangers they incur in crowded cars, department stores, depots, theaters and the like, and must also be warned not to neglect the first symptoms of the disease. and especially not to consider that a chill is due only to a cold and that they will probably shake it off.

SANITATION AND THE PANAMA CANAL.

The efforts to secure a member of the medical profession on the Isthmian Canal Commission, while in one sense resulting in failure, were not entirely lost. The letters and telegrams which poured into the executive mansion asking for the appointment of Major Gorgas, reached the President too late to secure all that was asked, but recent developments show that the President was influenced by them. In the letter of instructions to the Isthmian Canal Commission the President specifically mentioned only one thing, and that was the sanitary arrangements. In his letter he said:

> There is one matter to which I wish to ask your special attention, the question of sanitation and hygiene. You will take measures to secure the best medical experts for this purpose whom you can obtain, and you will, of course, make the contractors submit as implicitly as your own employes to all the rules and regulations of the medical department under you. I presume you will find it best to have one head for this medical department, but that I shall leave to your own judgment.

We understand that Major Gorgas will be given charge of the sanitary arrangements, although no definite action regarding the matter has been taken.

GLYCERINATED VACCINE LYMPH.

Nothwithstanding the widespread use of glycerinated lymph in the last few years there are certain fundamental facts regarding it which as yet have not been thoroughly grasped by the profession at large. We refer particularly to the different effects produced by vaccine lymphs of different ages. These points are of great practical importance, and have recently been emphasized anew by Levy.[1] As this author states, the glycerin was originally added to the lymph with the idea that it caused a rapid loss of virulence in the pus cocci which are almost always present in the lymph, without materially affecting the activity of the vaccine organism. As Levy points out, the latter organism is also weakened in activity by the glycerin, and much more rapidly than was at first supposed. Levy compares the effect of fresh and old lymph on revaccinated cases, and on original vaccinations. His main conclusions are that in original vaccinations the lymph used should always be at least four weeks old, since lymph of this age rarely causes the severe inflammatory reaction seen after the use of fresh lymph. On the other hand, fresh lymph should always be used in revaccinations, as old lymph often fails to produce any reaction in cases which are susceptible to vaccinia, but only when a strong lymph is used.

THE CONTAGION OF SCARLET FEVER.

In this issue of The Journal we abstract an article from the *Lancet* by Dr. Lauder, who expresses the opinion—not a new one—that the contagion of scarlet fever is conveyed by the respiratory tract, and that the constitutional condition and rash are only the results of toxic products and not dangerous as regards the spread of the disease. This is an opinion quite contrary to the one ordinarily received, but his experience reported in the article referred to in the management of scarlet fever would seem to indicate its correctness. The germ of scarlet fever is one that is unknown to us, and, therefore, our knowledge of the disease is to that extent limited, but a careful clinical study will enable us to do much to check the ravages of even an unknown germ. The capriciousness of the contagion of scarlet fever has been observed by almost every practitioner, and it may perhaps be explained by the observers' assumption that the contagion was conveyed in the rash and its products. A closer study of the cases with a view as to the dangers of respiratory matter and the conditions of the throat and nose will perhaps make this capriciousness in scarlet fever less mysterious. As in diphtheria, it is possible that the greatest danger is in the intimate contact with the patient, and that the infection itself is sometimes comparatively short lived. This, however, is a matter for further study.

THE DIAGNOSTIC VALUE OF EOSINOPHILES IN THE SPUTUM.

Since their discovery by Wharton Jones, the coarsely granular leucocytes, now known as eosinophiles, have attracted a good deal of attention. In recent years their increase in the blood in certain diseases, and particularly in diseases caused by intestinal parasites, has led to renewed activity in their investigation. The increase of these cells in the sputum in asthma, and their relation to the Charcot-Leyden crystals, have been repeatedly discussed. In diseases of the lung, other than asthma, various observers also have described either an increase or a lack of eosinophiles. In general, there has been an agreement among these authors that the eosinophiles are increased in asthma and bronchitis and decreased in tuberculosis, so that in cases of suspected tuberculosis, in which tubercle bacilli could not be found, an absence of eosinophiles from the sputum was thought to favor a diagnosis of tuberculosis. Some writers have, however, persistently asserted that eosinophiles were present in tubercular as well as in asthmatic and in bronchitic sputum. In a recent article, Hildebrandt[1] gives his results of studies on this question. The sputum was obtained from cases of various forms of tuberculosis—cases with acute and chronic bronchitis, bronchial asthma, pneumonia and lung infarcts. The conclusion at which the author arrived was that eosinophiles in the sputum were a rule rather than an exception; that they were not a diagnostic sign of bronchial asthma, and that they were present in pulmonary tuberculosis. In view of the recent comparative work of Opie,[2] who demonstrated the frequency with which eosinophiles are found in the respiratory tract, and also noted their extrusion into the lumen of the bronchi, their presence in the sputum might be expected frequently. A careful histologic study of human lungs in normal and pathologic conditions to determine the frequency of eosinophiles in the air passages, and the conditions which influence their migration, seems indicated.

CANINE MALARIA.

Experiments on animals are undoubtedly of the greatest value in settling special questions, but there is a large field of clinical observation in more general lines that is equally valuable in medicine. The comparative pathology of diseases is a study which has not received as much attention as it really deserves. Especially is this the case with our domestic animals, whose close association with the human species renders their disorders of special interest and often of serious importance to their masters. Dr. A. B. Dalgetty of South Sylhet, India, reports[3] the case of a fox terrier which seemed out of sorts with a certain periodicity of symptoms and with hematuria; these facts led him to investigate the blood, and he found a large number of parasites very closely resembling the malarial germ. The ring-shaped appearance recalled the parasite of malignant malaria. There was intense anemia, and an examination of the blood-colored urine revealed no red corpuscles, showing that the color must have been due to the hemoglobin alone, and that the destruction of the blood cells was very great. The therapeutic test bore out the diagnosis. Quinin in two- to three-grain doses was given daily for some time, and the immediate improvement showed that the disease was of malarial nature. As soon, however, as quinin was discontinued the old symptoms recurred, though in a milder form. Considering that the disease was due to the malarial parasite, Dalgetty asks whether it might not be fairly established that the dog is a possible source of infection to man, perhaps carrying malaria into sections where it may not have existed. We have not before seen an account of such a case in a dog so closely resembling the malignant malaria with its accompanying hemoglobinuria. It is not mentioned by either Scheube or Manson. The diseases of our domestic pets are very much neglected, and their involuntary revenge may be expensive and inconvenient. The subject is one that is worth further study; in fact, the subject of diseases in the lower animals deserves a pretty thorough elucidation as a matter of human self-defense.

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[1] Münchener med. Woch., No. 7, 1904.

[1] Münchener med. Woch., vol. li, No. 3.
[2] Amer. Jour. Med. Sci., Feb., 1904.
[3] Jour. of Tropical Medicine, March 1.

THE RELATIONS BETWEEN MEAT POISONING AND PARATYPHOID FEVER.

According to the investigations of Trautmann,[1] there appears to be an intimate and interesting relationship between the bacilli regarded as the cause of certain meat poisonings and paratyphoid bacilli. Both Trautmann, Schottmüller and B. Fischer, as well as de Nobele, regard all these organisms as belonging to the same group. Hitherto we have thought of paratyphoid bacilli only in connection with a rather mild kind of typhoid-like disease, and at first sight it seems somewhat far-fetched to attempt to place meat poisoning and paratyphoid under the same etiology. It may be pointed out, however, that while these bacilli are closely related, yet there are minor differences on part of the various races, and that differences in the clinical manifestations of the infections might be accounted for on the score of biologic differences in the organisms. The virulence of the bacilli and susceptibility of the patient are also highly important factors that should not be left out of sight. Trautmann, in considering this question, would put special stress on the difference in the conditions under which the infection takes place in meat poisoning and ordinary paratyphoid fever. In the case of poisoning, meat (improperly prepared, uncooked?) of infected animals is taken into the stomach. meat that often contains not only the bacilli perhaps, but also the toxic products of the latter. This is followed by acute and violent symptoms, e. g., vomiting and diarrhea, ending in early death, or recovery after, perhaps, protracted illness. In case of ordinary paratyphoid fever, the infection is established with a relatively much greater slowness, and the symptoms become apparent much more gradually. Trautmann observed, furthermore, that in the epidemics of meat poisoning there occurred certain cases that form transitions between the two types of infection, and he consequently regards typical meat poisoning as a hyperacute and paratyphoid as a subacute form of the same infectious disease. If this view is adopted generally, the pathogenic importance of paratyphoid bacilli will be increased greatly. In order to secure additional information in regard to these questions, all cases of meat poisoning should be studied with the greatest care from the bacteriologic point of view. It appears that in Germany epidemics of meat poisoning have followed the consumption of more or less improperly prepared meat of infected animals, and Trautmann suggests that in cattle paratyphoid organisms cause an epizootic after the nature of anthrax. This in itself is an interesting question in comparative pathology.

Medical News.

ILLINOIS.

Promotional Examination.—A promotional examination for senior physicians at Cook County Institutions, Dunning, will be held, April 14, 15 and 16.

Medicine Men Jailed.—"Drs." Wallace and Miller, itinerant medicine men who victimized Tazewell County farmers, were fined at Pekin, March 14, and in default of payment were committed to jail.

Golden Anniversaries.—Dr. and Mrs. William E. Gilliland, Coatsburg, celebrated their golden wedding, March 22.——McLean County Medical Society will celebrate its semi-centennial at Bloomington with a banquet, April 7, at which Dr. Franklin C. Vandervort, president, will be toastmaster.

Consulting Staff at Dunning.—The county board has confirmed the following appointments to the consulting staff of Cook County Institutions, Dunning: Internal medicine, Dr. Frank Billings; surgery, Dr. John B. Murphy; pathology, Dr. William A. Evans; insanity, Dr. Hugh T. Patrick, and tuberculosis, Dr. Arnold C. Klebs, all of Chicago.

Smallpox.—The appearance of two or three cases of smallpox at the Cottage Hospital, Peoria, has necessitated temporary closure of the institution, and quarantine.——Carlyle has six cases.——Seneca and Marseilles have discovered that the supposed chicken-pox which is prevalent there is smallpox.——Streator reports the smallpox epidemic at an end. There were 44 cases and two deaths.

Personal.—Dr. Henry C. Fairbrother, East St. Louis, was appointed by the governor, on March 28, a member of the Illinois State Board of Commissioners of Public Charities. The other medical member of the board is Dr. William Jayne of Springfield.——Dr. A. B. Middleton, Chatsworth, is seriously ill with pneumonia.——Dr. John E. Covey, Lexington, sailed for London March 22.——Dr. William P. Schirding, Palatine, returned from Vienna a few days ago.——Dr. John W. Colbert, Jacksonville, has been appointed physician of a Presbyterian hospital in Puerto Rico.

Chicago.

Still Sporadically Enforced.—Four individuals charged with violating the anti-spitting ordinance, were fined each $1 and costs, March 28.

Physician Exonerated.—Dr. Bruce T. Bowens, charged with having performed an operation which resulted in the death of Mrs. Minomi Chandler, was exonerated by the coroner's jury.

Again Pneumonia Leads.—During the week ended March 26, 156 of the 626 deaths reported, or 24.92 per cent., were due to pneumonia. Consumption caused 76 deaths, heart diseases, 50; Bright's disease, 42, and violence 36. The mortality shows an annual rate of 16.32 per 1,000.

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[1] Zeitschr. f. Hyg. u. Infectionskr., 1903, xlv, 139; and 1904, xlvi, 68.

University and Bellevue Alumni to Meet.—The fourth annual meeting and dinner of the Western Alumni Association of the University and Bellevue Hospital Medical College will be held at the Sherman House April 11. Professors Joseph D. Bryant and Egbert Le Fevre of New York will be the guests of the evening. Dr. David W. Graham, Chicago, is president of the association, and Dr. Willis O. Nance, 100 State Street, Chicago, is the secretary. Former students of Bellevue or of the University who have not received invitations to the meeting may do so by addressing the secretary.

Boil the Water.—The Department of Health announce that there will undoubtedly be an increase of typhoid fever and the acute intestinal diseases among those who drink untreated hydrant water. There had previously been noted an increase of the colon group of bacilli from a previous 35.7 per cent. to 56.5 per cent. of the examinations. This fortnight's increase is already reflected in the increased deaths from the acute intestinal diseases—from 14 during the week of March 19 to 31 during the week of March 26, or more than 120 per cent. Such an increase is a sure precursor of an increase of typhoid fever.

Warning Against Rabies.—The number of rabid dogs which have been killed during the last few weeks, brings from the department of Health the advice that the public should appreciate the importance of securing a dog that has bitten anyone and keeping him alive until it is positively known whether or not he is suffering from rabies. It also recapitulates the symptoms of rabies in dogs as follows:

> Beware of a dog when it becomes dull and hides away; appears restless; always on the move and prowling; whose countenance is somber and sullen; walks with head down like a bear. Beware of one that barks at nothing, when all around is still. Beware of a dog that scrapes incessantly and tears up things. Look out for the dog which has become too fond of you and is continually trying to lick your hands and face. Beware, above all, of the dog which has difficulty in swallowing, which appears to have a bone in its throat, and one that has wandered from home and returns covered with dirt, exhausted and miserable.

INDIANA.

Smallpox.—During February 408 cases of smallpox were reported, with 5 deaths, from 34 counties. In the preceding month there were 480 cases and 8 deaths in 38 counties, and in the corresponding month of 1903 there were 889 cases, with 50 deaths in 59 counties.

Physicians Injured.—Dr. William H. Kluge, Indianapolis, sustained injuries to his spine by being thrown violently against a car platform by a lurch of the car.——Dr. Cortez M. Leeth, West Indianapolis, was beaten with knuckles in an attempted hold-up and rendered unconscious.

Prevalent Diseases.—Measles was the most prevalent disease in February; then follow, in the order given, bronchitis, pneumonia, influenza, tonsillitis, rheumatism, scarlet fever, typhoid fever, diphtheria, diarrheal diseases, erysipelas, whooping cough, cerebrospinal meningitis, dysentery, puerperal fever, cholera morbus and cholera infantum.

Registering Phthisis.—The State Board of Health has issued blanks to local health boards for complete reports of cases of tuberculosis. This follows the order requiring physicians to report all such cases, as other contagious or infectious diseases are reported. It is expected, from these reports, and those of inspectors, to have a complete history of each case.

Increase in Pneumonia.—The increase in pneumonia is alarming, the total deaths in Indiana in February being almost twice as many as from tuberculosis. The pneumonia death rate in the cities is 417 per 100,000, and in the country 323. Of the total pneumonia deaths 353 were females and 429 males, and 155 were children under one year of age. A careful study of the matter points to the conclusion that the pneumonia increase attended the increase in measles and influenza, and was not caused by weather conditions.

February Deaths.—The total number of deaths in February was 3,477, equivalent to an annual rate of 17.4 per 1,000. In the corresponding month last year the deaths numbered 2,677, or 13.8 per 1,000. In January there were 3,177 deaths, a rate of 14.8 per 1,000. The increase in pneumonia is responsible in a degree for this increase in deaths. Some important causes of death were: pulmonary tuberculosis, 365; typhoid fever, 60; diphtheria, 32; scarlet fever, 23; pneumonia, 711; influenza, 116; cancer, 78; violence, 142, and smallpox, 5. The city death rate was 21.7, and the country rate 15.1. The cities present the highest death rates in consumption, typhoid fever and pneumonia. The country presents a higher death rate in influenza. Two of the smallpox deaths occurred in cities, and three in the country.

Personal.—Dr. David G. Linville, Columbia City, has entered on his eighty-third year.——Dr. Horace Wardner, superintendent of the Home Health Club Hospital and Sanitarium, La Porte, has resigned on account of ill health, and has been succeeded by Dr. Hulbert Fuller of Chicago.——Dr. and Mrs. John W. Younge, Fort Wayne, sailed, March 8, on a trip to the Mediterranean and the Holy Land.——Dr. William Cluthe, Tell City, has been appointed secretary of the Perry County Board of Health, vice Dr. James B. Bennett, Derby.——Dr. David S. Stanton, Portland, secretary of the local board of health, 82 years of age, is said to be the oldest health officer in Indiana.——Dr. Stanley W. Edwins, Elwood, has given up practice, on account of ill health.——Dr. S. F. Kincaid, Taylorsville, has been appointed health officer of Bartholomew County.——Dr. Homer C. Stalker, Salem, has succeeded Dr. Theodore C. Sargent, Lafayette, as chief of the medical staff of the Indiana State Soldiers' Home, Lafayette.——Dr. J. Edwin Showalter has been made secretary of the Waterloo Board of Health, vice Dr. Frank Broughton, resigned.

IOWA.

Drugless Healers Exempt.—Judge J. H. Richards, Webster City, has ruled, in the case of the State of Iowa against "Dr." J. Wilson, Edmunds, for alleged illegal practice of medicine, that "drugless healers" do not come under the provisions of the medical practice act.

Typhoid Germs in Cedar River.—Drs. Henry Albert and Walter L. Bierring, to whom was entrusted the task of determining the source of typhoid fever infection in Waterloo, have demonstrated that the typhoid germs came not from infected wells, but from the Cedar River, the source of the water supply of the city.

State Hospitals.—The senate has voted an appropriation of $125,000 for the establishment of a state hospital for inebriates at Knoxville. The former industrial home for the blind will be used, and new buildings erected. The bill provides that treatment is not to exceed three years.——The home committee on appropriations has passed a bill devoting $50,000 to the erection of a state hospital for consumptives.

Personal.—Dr. John G. Mueller, Iowa City, has been appointed examining surgeon of the university battalion, vice Dr. J. W. Harriman, deceased.——Dr. August Anderson, Sioux City, who was seriously injured in an acetelene gas explosion, February 29, is making a satisfactory recovery.——Dr. Lee W. Dean, Iowa City, professor of otology, laryngology and rhinology in the University of Iowa, has been granted indefinite leave of absence on account of ill health.——Dr. William L. Miller is critically ill at his home in Des Moines.

LOUISIANA.

Commencement.—Flint Medical College, New Orleans, held its fifteenth annual commencement exercises, March 11, graduating a class of five. The annual address was delivered by J. Madison Vance, and Dr. F. H. Knight presented the diplomas.

War Against Mosquitoes.—The State Board of Health has transmitted copies of resolutions adopted March 1, to all physicians in the state, emphatically urging them "and all other persons attending patients with fever to carefully keep a well-tucked bar over such patients, especially during the first four days of their illness, and as far as practicable to destroy mosquitoes about the patient's bed and room. This precaution should be particularly observed from April 1 to November 30."

Personal—Dr. T. A. Jones has been elected secretary of the faculty of Flint Medical College of New Orleans University, vice Dr. A. J. Lopez, resigned to accept the chair of neurology.——Dr. Clarence L. Horton, New Orleans, medical inspector of the State Board of Health, has withdrawn from the service on account of his removal from the city.——Dr. Holt King, Baton Rouge, has been appointed medical examiner for Louisiana at Ceiba, Spanish Honduras, and Dr. J. S. Aliston, Natchitoches, medical examiner at Belize.——Dr. Lester J. Williams, Baton Rouge, has been appointed marine medical inspector on ships plying between New Orleans and Central America.——Dr. Harvey J. Clements, New Orleans, is taking a vacation of five months.

MAINE.

Smallpox.—Calais has several cases of smallpox, and St. Stephen is enforcing a strict quarantine and vaccination.

"Holy Ghosters" in Trouble.—Rev. T. W. Sanford, leader of the "Holy Ghost and Us" Society in Auburn, was found guilty of cruelty in compelling his little son, aged 6, to fast 72 hours. Trial on a charge of manslaughter because he refused to allow a physician to be called to another boy, 14 years old, who later died of diphtheria, resulted in a disagreement of the jury.

Society's Semi-Centennial.—The Penobscot County Medical Association celebrated the conclusion of the first half century of its existence by a banquet at Bangor, February 22, at which about 75 were present. President Dr. Daniel McCann called the meeting to order and designated Dr. Augustus C. Hamlin as toastmaster. Dr. Daniel A. Robinson reviewed the history of the organization; Dr. George A. Phillips, Bar Harbor, read an original poem, and Dr. Augustus S. Thayer, Portland, president of the Maine Medical Association, made a plea in favor of organization.

MARYLAND.

Refuse Appropriation to Colleges.—The legislature has decided not to grant the appropriation of $4,000 asked for by each of the medical colleges of Baltimore.

No Library Building.—The medical and chirurgical faculty failed to get any appropriation for its library building from the legislature. It is probable the application will be renewed two years hence.

Baltimore Deaths.—Two hundred and thirty-six deaths were reported last week against 200 last year, being an annual death rate of 22.10 per 1,000; white 18.77, colored 40.24. The principal causes of death were pneumonia, 46; consumption, 36; Bright's disease, 13; cancer, 11; bronchitis, 10; influenza, 8; scarlet fever, 5; and typhoid fever, 3.

Appropriation Bills for Hospitals.—Bills are before the legislature for appropriations of $200,000 to complete Springfield State Hospital for the Insane; $66,000 for the Maryland Asylum and Training School for the Feeble-minded, $53,000 to complete buildings at Maryland Hospital for the Insane, and $10,000 for the Cambridge Hospital. The omnibus appropriation bill, recommended by the ways and means committee, and introduced into the house, provides the following annual appropriations: Maternity of College of Physicians and Surgeons, $3,000; Nursery and Child's Hospital, $2,500; Hebrew Hospital, $4,000; Home for Incurables, $2,500; Hospital for the Women of Maryland, $4,000; Baltimore City Hospital, $7,000; Maryland General Hospital, $5,000; University Hospital, $5,000; Maryland Lying-In Hospital, $3,000; St. Joseph's Hospital, $5,000; Franklin Square Hospital, $2,500; Union Protestant Infirmary, $5,000 (the last seven on condition of taking a certain number each of state patients); St. Agnes Hospital, $3,500; Hospital for Relief of Crippled and Deformed Children, $5,000; Provident Hospital (colored), $1,500; Hospital for Consumptives, $5,000; Baltimore Eye, Ear and Throat Hospital, $2,000; Southern Dispensary, $500; Johns Hopkins Hospital, $20,000; Home and Infirmary of Western Maryland at Cumberland, $7,500; Peninsula General Hospital, Salisbury, $5,000; United Charities Hospital, Dorchester County, $6,000; Johns Hopkins University, $25,000; Frederick City Hospital, $3,500; Northeastern Dispensary, $1,000; Emergency Hospital, Annapolis, $2,500; Washington County Hospital, Hagerstown, $6,000; Silver Cross Home for Epileptics, Port Deposit, $1,500, and West End Maternity, $1,000. The annual appropriations are for two years, or until the next legislature meets. The omnibus bill being introduced is equivalent to the above appropriations being actually made.

MASSACHUSETTS.

Mulcted for Unauthorized Autopsy.—The courts have decided that permission for an autopsy on his child was not granted by Louis Bromberger, and that the Massachusetts General Hospital must pay him $50. Suit for $2,000 was brought.

Additions to Asylums.—The Massachusetts senate will appropriate about $300,000 to be used for new buildings and improvements at the Westboro Insane Hospital, the Taunton Insane Hospital and the School for Feeble-Minded Children.

Hospitals Benefit.—The Salem City Hospital benefits as residuary legatee of Miss Hannah K. Grant of that city, her sister having the use of the property during life. The fair held at the Hotel Vendome, March 26 and 27, netted nearly $5,000 for the Infants Hospital, Boston.

Golden Wedding.—Dr. and Mrs. Joshua Bailey Gould of Somerville, Mass., celebrated their golden wedding, March 23. Dr. Gould is nearly 85 years old, and after practicing medicine in Templeton and adjoining towns came to West Somerville in 1874, and continued practice there till his eightieth birthday, a period of active practice of over 50 years.

Surgeon General Resigns.—Brigadier-General Robert A. Blood, Charlestown, surgeon general of the Massachusetts Volunteer Militia, has resigned, to take effect May 2. It is expected that Lieutenant-Colonel Otis H. Marion, Brighton, will succeed him. Dr. Marion joined the First Regiment in 1883, becoming medical director of the First Brigade in 1897. This position he has since held, except for a year, 1898, when he went to the front with the Sixth Infantry

Personal.—Dr. Harold Williams, dean of Tufts Medical School, who with his family has spent the winter in France is expected home in May.——Among Boston physicians who will spend Easter at Washington, Baltimore or Philadelphia are Drs. Dudley Williams, Whitredge Williams, John P. Reynolds, Moses Douglass, and Henry Barton Jacobs.——Dr. Arthur E Austin, professor of medical chemistry and toxicology in Tufts Medical School, is studying in Ludwig's bio-chemical laboratory, Vienna.

MINNESOTA.

Epidemics in Minneapolis.—It is reported that there are more than 200 cases of typhoid fever in Minneapolis, and that the number is steadily increasing. At least 14 deaths from this cause occurred during February.——During the week ended March 21 17 new cases of smallpox were reported in the city, a number of which were in Augsberg Seminary.

Personal.—Dr. Frederick A. Dunsmoor has resigned as medical director of Asbury Hospital, Minneapolis, and Dr. J. Warren Little has been appointed to succeed him.——Dr. Jacob E. Schadle, St. Paul, has been appointed professor of rhinology and laryngology in the College of Medicine and Surgery of the University of Minnesota, Minneapolis, to succeed Dr. Winfield S. Laton, Minneapolis, resigned.

Would Avoid Notoriety.—The Brown and Redwood County Medical Society, at its last meeting, put on record the desire of its members to avoid newspaper notoriety by passing the following resolutions:

> *Resolved*, That the secretary be authorized to request editors not to mention the name of any physician in connection with any case, and be it further
>
> *Resolved*, That a copy of this resolution be sent to all newspapers in Brown and Redwood counties.

Must Report Births and Deaths.—A circular has been sent to physicians and county officials calling their attention to the law requiring parents and householders to notify the county clerk or health officer of all births and deaths of members of their households under penalty of a fine varying from $5 to $25, and requiring physicians to report within ten days all births and deaths, and midwives to report all births under a penalty of fine or imprisonment.

NEW YORK.

Getting in Line.—Orange, Richmond and Essex county medical societies have ratified the union of the state medical society and association.

Albion's Water Supply Impure.—In a report to the State Department of Health Professor Olin Landreth says the Albion Water Company is supplying canal water to the village, and that the water is a menace to health, and that its use must be discontinued.

Object to Use of Summer Resort for Insane.—People living along the Great South Bay have presented a petition to the state lunacy board begging it to alter its intention of accommodating the mildly insane at the Surf Hotel on Fire Island, as it would greatly interfere with their profits during the summer, which are derived from conveying parties to this island on picnics and excursions.

New Bills.—There is a bill now before the legislature to prohibit the use of cocain.——Mr. Platt has also introduced a bill requiring that the formulæ must be printed on the wrappers of patent medicines.——Mr. Nye's bill to regulate the practice of optometry also had a hearing.——Senator Hawkins has introduced a remarkable bill regulating the practice of osteopathy. It provides that the board of regents shall conduct examinations for those qualified to practice. The exemptions are precisely the same as those made in the Wilcox bill for optometry. In a slightly different form this measure has been introduced into several legislatures, but has never emerged from committee.

State Lunacy Commission Bill.—The senate finance committee reported favorably on Senator Malby's bill empowering the commissioner in lunacy to enter into an amicable arrangement with the emigration authorities of the government, by which a more careful inspection may be made as to the mental condition of immigrants landing at the port of New York. On the completion of such an arrangement the state commission is authorized to appoint a board of alienists for the examination of insane, idiotic, imbecile and epileptic immigrants, to consist of a chief examiner at a salary of $5,000, and two assistants at a salary of $3,000 each. The commission in lunacy believe that there is no more serious economic question confronting taxpayers to-day than that pertaining to the immense flood of immigration. Of the aliens landing at Ellis Island, 44 per cent. give New York City as their prospective permanent home, therefore it can be seen that the usual percentage of defectives among this class will become a permanent burden on the state. At the present time there are admitted each week to the Insane Retention Pavilion of Bellevue Hospital, at least 4 recently landed immigrants who show marked evidences of mental derangements.

Buffalo.

Personal.—Dr. Roswell Park left for Berlin to attend the annual meeting of the German Surgical Society. From Berlin he will visit Mikulicz at Breslau and MacEwan at Glasgow. ——Dr. David E. Wheeler has been appointed visiting genitourinary surgeon at the Sister's Hospital.

New York City.

Vital Statistics for 1903.—Health Commissioner Darlington reported for the year 1903 that there were 67,864 deaths, 94,755 births, and 31,174 marriages. Pneumonia caused 9,174 deaths; tuberculosis, 9,403; Bright's disease, 5,636, and violence, 4,068. There were 805 suicides.

Instruction in First Aid.—The board of education has arranged for the delivery of a series of free lectures to be given in the boroughs of Manhattan, Brooklyn and Queens. Those who have taken the course and passed a satisfactory examination will be entitled to a certificate and may wear the first-aid insignia.

City Hospitals Overcrowded.—The records of the twenty largest hospitals in the city, taken March 26, show that there are only 56 vacant beds in hospitals, with an aggregate capacity of 5,446. Were it not for the recent opening of the new Mount Sinai Hospital, the accommodations would be totally inadequate to the number of patients.

Personal.—Dr. Rudolf Rapp has been appointed to the staff of the Craig Colony for Epileptics at Sonyea, N. Y.——Dr. Hermann M. Biggs recently presented the exhibit prepared by the New York Board of Health for the St. Louis Exposition, at the Academy of Medicine.——Dr. William T. Bull has practically recovered from his recent illness.

County Society Election.—At the meeting March 21, the following officers were elected: President, Dr. Francis J. Quinlan; vice-presidents, Drs. Henry A. Dodin, and S. Busby Allen; secretary, Dr. William R. Stone; corresponding secretary, Dr. John J. Nutt; treasurer, Dr. Charles E. Denison; executive committee for three years, Dr. Alexander Lambert; for two years, Dr. Frederick W. Loughran. Sixty fellows and sixty alternates were also appointed for the state association.

Jamaica Hospitals Fight.—The differences between the Jamaica and St. Mary's hospitals of Jamaica, Long Island, over the proposed redistribution of the districts of the two hospitals are about to be investigated. At present the Jamaica Hospital receives calls from all points south of Fulton Street, Jamaica, which gives it the railroad cases, and against this St. Mary's Hospital protests. It is charged against the Jamaica Hospital that the orderlies have been sent out on ambulance calls to act as physicians.

Loomis Laboratory vs. New York University.—When the amalgamation was made between the New York University (medical department) and Bellevue Hospital Medical College the Loomis laboratory went with the amalgamation. The university trustees sought to impress a trust on the laboratory property, asserting that the laboratory was a part of the university itself. In the Supreme Court, Justice Truax has decided that the university is not entitled to a reconveyance of the property, and this decision has been upheld by the Appellate Division, whose judgment is now affirmed by the Court of Appeals.

OHIO.

Typhoid Decreasing.—In the week ended March 19, only 19 deaths from typhoid fever occurred in Cleveland, and 54 new cases were reported.

Physicians Want Representation.—On March 28 a resolution was passed by the Academy of Medicine, Cincinnati, requesting the mayor to appoint a member of the medical profession to fill the vacancy on the health board. At present the board is composed of six members, not one of whom is a physician.

Personal.—Dr. Walter W. Brand, health officer of Toledo, has been given an increase in salary from $1,800 to $2,800 a year. ——Dr. Andrew C. Kemper, Cincinnati, has been admitted to the Soldier's Home, Dayton.——Dr. Joseph A. Murphy, Columbus, has been appointed coroner of Franklin County, vice Dr. Oliver W. Lindsay, deceased.

Hospital Loses by Technicality.—By the will of Benjamin Wood Davis, the Jewish Hospital, Cincinnati, is bequeathed $10,000. Unfortunately the will was made less than one year ago, and therefore this bequest is void under the statutory provision which requires that a will must have been made more than a year before death to make such bequests valid.

Academy Election.—The election of officers of the Cincinnati Academy of Medicine, held March 7, resulted as follows: President, Dr. Simon P. Kramer; vice-presidents, Drs. John M. Withrow and Julia W. Carpenter; secretary, Dr. Stephen E. Cone; treasurer, Dr. M. Agnus A. Tate; librarian, Dr. Arch. I. Carson; trustees, Drs. E. Gustav Zinke, James F. Heady, and David I. Wolfstein; delegates to the state medical association, Drs. Charles A. L. Reed, Simon P. Kramer, Louis Schwab, and Mark A. Brown, and alternates, Drs. Charles L. Bonifield, Louis Stricker, David I. Wolfstein and George A. Fackler.

PENNSYLVANIA.

Physicians' Injuries.—Dr. F. Otis Bryant, Chester, while returning from a call in his carriage, was struck by a trolley car and severely injured, but not fatally.——Dr. George I. McLeod, Ardmore, whose feet were run over by a railroad train last December, sustaining injuries which necessitated double amputation, is now able to be about on artificial feet.——Dr. William H. Warder, one of the oldest practitioners of Philadelphia, was severely injured by being thrown from his carriage, March 23.

Reorganization.—The State Board of Health will issue a circular letter to the various medical societies throughout the state, asking them to aid in obtaining legislation to reorganize the system of health reports. Dr. Lee, the secretary, will suggest that the various medical societies throughout the state adopt resolutions urging on senators and representatives the importance of enacting laws to establish a health officer in every county, and a deputy health officer in every township. These representatives shall be directly responsible to the State Board of Health. All incurable diseases are to be reported both by physicians and householders, and he further suggests that all water companies be placed under state supervision.

Insane Asylum Condemned.—Investigations by the grand jury and representatives of the state lunacy board reveal that the present buildings of the Schuylkill County Insane Asylum are entirely overcrowded and unfit for occupancy, and that the sanitary conditions are of the most ancient description. There are 250 insane patients to be cared for by Schuylkill County, and 149 of these are being treated in the state institution in Danville. Dr. George I. McLeod, president of the state lunacy board, says that much better results could be obtained if the "County Care Act" were taken advantage of. By this act the county insane asylum would come under state control, and at the same time receive from the state $1.50 per week for each patient. In order to secure this state aid the county must provide suitable buildings.

Philadelphia.

Bequests.—By the will of Albert J. Cliff there will revert at the expiration of trust the residue of $45,000 to the Methodist Episcopal Home for the Aged and Methodist Hospital, share and share alike.——By the will of Mary P. Wernwag the sum of $60,000 is devised in trust for the benefit of the Home of the Merciful Saviour for Crippled Children.

Banquet to Dr. Shoemaker.—On March 22 Dr. John V. Shoemaker, professor of therapeutics in the Medico-Chirurgical College, was entertained by the faculty of the college in celebration of the thirtieth anniversary of his entrance into medical practice. Dr. Shoemaker was presented with a silver shield containing the seal of the college and the names of his associates in the faculty.

Philadelphia Hospital Examinations Deferred.—As a result of an interview by the dean of the different medical colleges with Mayor Weaver, regarding the date of the examinations for internes, the examinations will be held on or about May 10, instead of a month earlier, as was first announced. This arrangement is made in order not to conflict with the student examinations in the colleges.

Hospital Improvements.—Two charitable institutions of the city will be greatly improved soon. The first is the Home for

Incurables, where a pavilion for the treatment of cancer is to be erected. The building will be of brick and be equipped with all devices for comfort and care of the patients. The second institution is the Episcopal Hospital, and estimates are being taken for the erection of the Aspinwall ward.

Lectures on Tropical Diseases.—Under the auspices of the University of Pennsylvania, Major Guy L. Edie, U. S. Army, is delivering a series of lectures on tropical diseases. His first lecture on March 23 was devoted principally to yellow fever. He described the general character, symptomatology and treatment of the disease, and devoted some time to the discussion of the part played by the mosquito in the propagation of this malady. He said that yellow fever could now be placed in the category of preventable diseases. In speaking of the mosquito he said that the decline of the hibernation period of the mosquito marked the spread of yellow fever. His second lecture was delivered on March 25, and the talk was devoted to the discussion of beri-beri, Asiatic cholera, and bubonic plague. Major Edie will deliver a series of ten lectures, two each week, on Wednesdays and Fridays. The medical profession of the city is invited to attend.

Health Report.—Typhoid fever shows no signs of abatement. Indeed, there is a slight increase this week over last week's high figures, those for the week drawing to a close being 148 cases and 17 deaths, compared with 141 cases, and 21 deaths for the previous week. There is also an increase in scarlet fever, total cases reported being 116, compared with 101 for the previous 7 days. There is a slight increase in the number of smallpox cases reported; 35 new cases were reported during the week, an increase of 5 over the preceding 7 days. This is attributed to a local outbreak of 11 cases in one section of the city. The deaths from all causes during the week number 585, being a decrease of 49 from those of last week, and an increase of 40 over those of the corresponding week of last year. Pneumonia's ravages have decreased but slightly since the first of the year, when the deaths each week were from 100 to 125. This exceeds the number of deaths caused by consumption, which heretofore have headed the death list in point of numbers. The deaths from consumption during the past seven days were 60.

Lecture to Teachers.—Dr. Jay F. Schamberg addressed the teachers and principals of the schools on medical inspection of the public school. He said that in the New York schools more than 3,000 children had been found with contagious diseases of the skin, and nearly 4,000 with diseases of the eye. He declared, therefore, that regular inspection by competent physicians was imperative to protect the health and welfare of school children. He pointed out the fact that it was a common observation that contagious diseases, such as scarlet fever, diphtheria and the like, increased after the opening of the schools, and decreased after the close. He said that children commonly attend school during the developmental periods of various contagious diseases, and that such patients are not only apt to communicate the disease to a considerable number of school children, but each child thus infected may carry the disease home and transmit the same to others. He said that Philadelphia was far behind in the matter of safeguarding the health of school children, but that the city was beginning to awake to the situation, and has just completed the organization of a medical corps, so that the inspection of school children will very shortly begin.

SOUTH DAKOTA.

Schools Reopened.—The public schools at Bridgewater, which were closed for three weeks on account of an epidemic of diphtheria, have been allowed to reopen, and public gatherings to be resumed.

Itinerant Appeals.—"Dr." Charles Cram, head of a medicine show company, who was arrested in Vermillion recently for selling medicine contrary to law, found guilty and fined $90, has appealed to the circuit court.

Uncertificated Oculist Guilty.—M. F. Yegge, Huron, has been found guilty of violating the state law regulating the practice of medicine, by practicing as an oculist and prefixing "Dr." to his name without first having obtained a certificate from the State Board of Medical Examiners.

Sixth District Society Meets.—Dr. E. Frank Reamer, Mitchell, secretary of the Sixth District South Dakota Medical Society, writes: The regular quarterly meeting of the Sixth District South Dakota Medical Society was held in Mitchell, March 3. There was a smaller attendance than usual, but some excellent papers were read and freely discussed. Dr. Van Buren Knott, Sioux City, Iowa, was the guest of the evening, and read a paper on "The Open Treatment of Simple Fractures." Two or three unusual clinical cases were presented by Drs. Bowen and Reamer. After the program a banquet was served at the Waverly Hotel. Medical organization in this district is very nearly complete, and the state generally is in good condition. The state association meets at Redfield June 1 and 2.

TENNESSEE.

Examinations.—The State Board of Medical Examiners will hold examinations in Knoxville, Memphis and Nashville, April 6 and 7.

Addition to Hospital.—The capacity of Mercy Hospital, Nashville, is to be increased by the addition of a new wing containing fifteen rooms, which will make room for 20 more patients.

City in Two States.—Dr. Hardin W. Reynolds, a homeopathic practitioner of Bristol, was fined $50 and costs on the charge of practicing medicine in Bristol, Va., without a license. Physicians in this state-line town are required to take out licenses in both Tennessee and Virginia.

To Enforce Law.—Four physicians of Bradley have been fined for violating the law requiring practitioners of medicine to have their licenses registered with the county clerk. In Chattanooga, 25 physicians were fined for the same offense: in Cocke county 17 warrants have been issued, and in Polk County 12 have paid fines, and some others have retired from practice. The attorney of the state board estimates that there are between 1,000 and 1,500 violators of the law in the state.

UTAH.

Salt Lake Deaths.—During 1903, 745 deaths occurred, a rate of 9.93 per 1,000. Of these 39 were due to diphtheria, 21 to typhoid fever, 8 to scarlet fever and 2 to smallpox..

Society Election.—At the annual meeting of Weber County Medical Society in Ogden, Dr. George A. Dickson was elected president; Dr. Chester E. Coulter, vice-president; Dr. Haymond J. Powers, treasurer; Dr. Amasa S. Condon, librarian, and Dr. Harry B. Forbes, secretary, all of Ogden.

Farmer's Doctor Fined.—Andrew Peterson of Logan, masquerading as "Dr." J. S. Gray of London, who has been victimizing farmers in the neighborhood of Ogden, was arrested, March 16, charged with practicing medicine without a certificate, and was fined $10, or ten days' imprisonment.

Would Collect Vital Statistics.—The State Board of Health is sending out circular letters to the different boards of county commissioners asking them to apportion their respective localities into health districts with suitable inspectors, and to appoint registrars for the collection and preservation of vital statistics. Sample blanks of death certificates accompany the circular letters.

GENERAL.

Second Congress of French-Speaking Physicians of America.—This congress is announced to convene, June 28, at Montreal, in the halls of Laval University.

The American Neurological Association will meet at St. Louis September 15 to 17, and this will be immediately followed by the sessions of the various medical departments of the Congress of Arts and Sciences, beginning September 19.

Inspect Panama Canal Route.—The members of the Panama Canal commission have left for Colon to inspect the route of the canal. They were accompanied by Col. William C. Gorgas, assistant surgeon general of the Army; Dr. Louis La Garde of the medical department of the Army, and Dr. John W. Ross, medical director of the Navy.

Navy Medical School Graduates.—Thirty-one members of the graduating class of the Navy Medical School received their diplomas, March 21, in the lecture hall of the National Museum. The presentation was by Mr. Charles H. Darling, Assistant Secretary of the Navy, and Secretary Moody made the principal address. Admiral Rixey followed with some practical advice.

CANADA.

To Furnish a Room.—The Victoria Trades and Labor Council will furnish a room in the Strathcona wing of the Royal Jubilee Hospital.

To Prevent Hospital Abuses.—Hereafter provincial patients will only be admitted to the Isolation Hospital at Victoria on guarantee of payment for same by the provincial government.

Hospital Crowded.—What to do with chronic patients at the Provincial Royal Jubilee Hospital, Victoria, is a matter of some concern. The number of patients admitted during February was 87, the number treated, 141.

New Consumption Hospital.—Calgary, N. W. T., is to have a sanatorium for the treatment of pulmonary tuberculosis under the charge of Dr. Ernest Wills. The climate around Calgary is considered excellent for the purpose.

A Hospital for Ottawa Consumptives.—Dr. Moore, secretary of the Canadian Association for the Prevention of Tuberculosis, states that the old Contagious Disease Hospital in Ottawa is to be converted into a sanitarium for consumptives. Negotiations are now under way, and a wealthy citizen of Ottawa has promised to donate the money to remodel the building.

Ontario Law and the X-Ray.—An Ontario high judge has just decided that the law can not force a man to submit to an *x*-ray examination. A farmer was suing the Toronto Street Railway for damages for injuries sustained in a street railway collision, and the company wanted to have the man submit to an *x*-ray examination. He refused, stating that he was afraid he might die under the operation, as he had read of a similar occurrence somewhere in the states.

Canada Retains the Cigarette.—A resolution was before the Canadian house of commons March 23, to prohibit the manufacture, importation and sale of cigarettes, which secured a rather long, if not profitable discussion. Last year a similar resolution was carried on a vote of 103 to 48, but owing to some irregularity in the measure it was subsequently ruled out. The sponsor of the measure this year quoted Sir William Hingston, Montreal, and Dr. Charles Sheard, M.H.O., Toronto, as representatives of the medical profession who had pointed out the dangers and evils of the habit of cigarette smoking. The production of cigarettes in Canada is increasing enormously, having gone up from 138,000,000 in 1902 to 178,000,000 in 1903. The resolution was opposed by both the prime minister, Sir Wilfrid Laurier and Mr. R. L. Borden, the leader of the opposition. No vote was taken thereon, and the subject is practically shelved for the present session, as according to the rules of the house it has been relegated to the bottom of the list.

FOREIGN.

Another Prize for Finsen.—The Edinburg University has bestowed the Cameron prize on Prof. Niels Finsen for the most important work in practical therapeutics of late years.

Memorial to Schede.—A memorial has recently been erected to Max Schede in the grounds of the clinic at Bonn, the seat of his labors since 1895. The address was delivered by his successor, Professor Bier.

Prize for Pamphlet on Tuberculosis.—Dr. M. Salomon has received the Alvarenga prize from the German Hufeland Society for his pamphlet on "Tuberculosis as a Disease of the Masses and Measures to Prevent it."

The Quadrennial Polish Medical Congress Postponed.—We learn inofficially that as seventy Polish physicians have left for the seat of war in the east, the congress announced to open at Lemberg in July has been abandoned for the present.

Ankylostomiasis in a German Garrison.—The new recruits entering the garrison at Metz last fall evidently brought ankylostomiasis with them as numerous cases have been discovered. The subjects frequently have to be dismissed as incapable of military service, even after long observation and treatment.

Koch's Tropical Research.—Robert Koch is prolonging his stay in South Africa for the purpose of studying a horse disease, the *Pferdesterbe*. He goes to Dar es Salam in April to introduce his method of treating the cattle plague, which has proved so effectual in southern Africa. He is expected in Berlin before the end of June, when his leave of absence expires.

Italian Physiologists as Senators.—Professor L. Luciani of Rome and Professor A. Mosso of Turin, both famed for physiologic research, have been appointed senators of the realm in Italy. Luciani is now 62 years of age, while Mosso is four years younger. Mosso was called to Moleschott's chair at Turin on the removal of the latter to Rome, while Luciani was Moleschott's successor at Rome.

Price of Diphtheria Antitoxin in Europe.—The new Behring Serum Institute which is planned for Germany is not to be a government institution to monopolize the production of serums, as it is considered best to leave their production in private hands to stimulate competition and perfection. The price of diphtheria antitoxin is high, a single dose costing about eighty-five cents, while in Denmark, where the production is a government monopoly, the dose costs only eight cents.

German Society for Repression of Venereal Disease.—The annual meeting of this new society was held at Berlin March 6. The membership has now reached 3,500, and there are twenty local branches in various German cities. The warning circular which has been distributed by the society among young men has been denounced by certain persons because it referred to preventive measures and advised that a physician should be consulted in regard to them. The critics asserted that this clause ought to be stricken out in the interests of morality, but after a long discussion the objections were withdrawn.

The Madeira Islands as a Health Resort.—Dr. Pannwitz of Charlottenburg is manager of the new German company formed to erect a sanatorium on one of the Madeira Islands. Prince Carl von Hohenlohe obtained the concession from the Portuguese government and a company has been formed with a capital of $200,000 to carry on the enterprise. The executive committee includes the physicians B. Fränkel of Halle, Rumpf of Friedrichshain, Wolf of Reiboldsgrun, Romer of Marburg, and Lencastre of Lisbon. The party sailed March 10 on the steamer "Eleonore Wormann" to Funchal to make arrangements for organizing a health resort on a large scale on this island.

Tribute to Professor Cornil of Paris.—The age limit—65—for the service as hospital physician having been reached, Cornil was retired last year, and his term of service in the senate expired at the same time, but he is still professor of pathologic anatomy, as for twenty-two years. His friends recently gathered to pay tribute to his life of devotion to science and progress. He was presented with a portrait medallion, and in his response dwelt on his life's ideal as "progress in all its forms, scientific, political and social." He urged that science and politics should join hands, each aids and supplements the other, and cited experiences to show the facility with which reforms can be realized when certain members of the profession are regarded as important factors in the political life of a country.

Silver Jubilee of the Cystoscope.—Prof. Max Nitze of Berlin received an ovation from his friends, pupils and fellow specialists the world around, March 9, 1904, the twenty fifth anniversary of the day on which he first exhibited his cystoscope before a medical society in Vienna. He was presented with an album containing the photographs of specialists in urology and also with a *Festschrift* and telegrams of congratulation signed by many specialists, surgeons, clinicians and gynecologists, as well as urologists of various countries. He is now in his fifty-sixth year, and notwithstanding the revolution in urology induced by his invention he has never received due academic recognition. He was 41 before he won the title of privat docent, and 52 before the position of professor extraordinary was conferred on him. Even now, as there is no chair of urology at Berlin, he has to deliver his lectures and train his pupils in his private establishment.

The Antimalaria Campaign of the Italian Red Cross Society.—The annual report just published reviews what has been accomplished during the four summer campaigns undertaken by this society. In 1900 about 31 per cent of the population in the ultramalarial districts contracted malaria. This proportion has been gradually reduced until last year only 11 per cent were affected. The first year the society had no quinin at its disposal, the second year it was able to give it to 925 patients, the third year to 1,272, and last year to 7,853. It had seven stations on the Campagna with 40 physicians and 32 nurses. Much better results would be attained if the society were able to keep up the quinin treatment during the winter, but the more than 12,000 laborers who flock to the Campagna during the harvest time scatter to all points of the compass afterward. The expense of the campaign last year was less than $9,000, part of which was contributed by the king and part by the city.

The Virchow Endowment Fund for Scientific Research.—On the occasion of Rudolf Virchow's sixtieth birthday about $20,000 was collected and presented to him as an endowment fund for scientific research. This sum was increased by various gifts and subscriptions until in 1901 it reached $36,000, and the further contributions at his eightieth birthday raised it by $16,000 more. This sum was placed entirely at his disposal, and since his death his heirs have formally given it over as an endowment fund to a board of seven trustees, to include five delegates from scientific societies, the mayor of Berlin, and a practical business man to serve as treasurer of the fund. The endowment states that the interest of the sum is to be applied to the aid of research in anthropology, ethnology, archeology, comparative philology and medical geography, by subsidies for travel, by aid in researches, excavations, etc., and in publication and illustration of works on these subjects or in the purchase of material, apparatus, etc. Such undertakings as have an established plan and estimate of expensès are to be given the preference.

The War from the Russian Medical Standpoint.—Dr. Weissbein, in an editorial in the *Russische med. Rundschau,* remarks that all entertainments have been abandoned in Russia, and attention is concentrated solely on the furtherance of the war and mitigation of its hardships. Physicians are giving public lectures to instruct the people in the principles of caring for the sick. Post-graduate courses in military surgery have been organized at all the universities and large numbers of physicians are hastening to the seat of war. It is generally understood that the conditions there are extremely unfavorable and that it will prove an arduous task to protect the soldiers against epidemics. Malaria prevails in the many swampy districts, and the unhygienic surroundings invite typhoid fever. Fortunately, he adds, the Russian soldier is extremely resistant and is able to undergo the severest hardships without losing courage. He is likewise accustomed to a vegetable diet and to deprivations of many kinds. The troops are well cared for on the long railroad trip, with abundance of hot tea and two warm meals a day. An army of trained nurses and attendants is ready to afford relief the moment its services are called on, and money is pouring in to supply every need.

Approaching International Congress of Ophthalmology.—The Journal, Aug. 22, 1903, page 503, published the particulars in regard to this congress, and due notice of the exhibition to be held therewith was given recently on page 720. The Swiss railways and boat lines offer low special rates to the members of the congress, and the town of Lucerne promises lavish hospitality. Owing to the death of Professor Pflüger the committee of organization now comprises Snellen of Utrecht, Barde of Geneva, M. Dufour of Lausanne, Haab of Zurich and E. Landolt of Paris, with Mellinger of Basle and Siegrist of Berne. The latter has charge of the exhibition, while the membership fee and all MS. should be sent to Professor Mellinger of Basle. Communications received before May 1 will be printed and distributed to members and discussed at the meetings. Those received after this date will be compelled to await their turn afterward. The printed summaries will be sent to the members with their tickets in receipt for the subscription ($5). The official opening has been advanced five days, and will be on September 13, instead of 18 as announced in the circulars first received. Accommodations at one of the best hotels at the rate of $1 a day (including early breakfast), can be secured by application to the chairman of the local committee, Dr. F. Stocker, of Lucerne, not later than September 1. Further information may be obtained from Dr. G. E. de Schweinitz, 1401 Locust Street, Philadelphia, the official correspondent for the United States.

DUBLIN LETTER.

The Consumptive Hospital.

The Royal National Hospital for Consumption for Ireland, which held its annual meeting a few days ago, is situated near Newcastle in County Wicklow, twenty-five miles from Dublin, in one of the most beautiful districts in Ireland. Founded eight years ago, it was the first "open-air" sanatorium in this country, and is still, with the exception of a small home near Belfast, the only one for poor patients. Of course, it is lamentably insufficient for the needs of Ireland, and this insufficiency tells injuriously on its own power of doing good. The hospital contains sixty-eight beds; 12,000 people die every year in Ireland from tubercular diseases. With the consequent enormous demand on its space the hospital has to fall back on the very doubtful expedient of limiting the stay of patients to a short period. The regulation time is fixed at ten weeks, though this is sometimes prolonged to sixteen or twenty in suitable cases. It is obvious that in such a short time as this little permanent good can be effected, for the treatment of tubercle has to be marked in months or years, not in weeks. At the same time the period is longer than is found possible in most hospitals for consumption in England, where six weeks is the usual period. Under the circumstances, sanatoria for the poor have but little power except in their educational capacity. They can teach patients the elementary facts of rational treatment, and the dangers of infection, and they can train them to follow hygienic modes of life. I fear, however, it is too often impossible, even for the most willing patients, to carry out their instructions fully on their return to domestic and business life. As it is, however, even in the short period allowed, Newcastle does excellent work. The annual report tells us that gain in weight is all but universal, and that at the time of their discharge many patients show no physical sign of disease. An interesting feature is the ward maintained by a manufacturing company for the use of their own employes, and patients in this ward are not affected by the usual limit of stay in the institution. The report of the company's medical officer, on the effects of the Newcastle treatment on his patients, is valuable testimony to the efficiency of the work that is done when there is no obnoxious time limit. Every one of the patients he had sent there had improved; several of them he believed cured; all had been, in his opinion, doomed to speedy death but for the treatment. The stay in hospital had varied from six to over twelve months. It is satisfactory that the hospital has enough funds to build a new wing, which will hold thirty beds for females. It is also intended to open an adjunct dispensary in Dublin where candidates for admission can be seen and former patients remain under treatment, and where advice—medical and educational—can be given to patients who are unsuitable for admission.

LONDON LETTER.

New Medical Buildings at Cambridge.

The new buildings erected in the University of Cambridge for the study of medicine, botany, geology and law, recently mentioned in The Journal, have been opened by the king, in the presence of a distinguished gathering, which included the presidents of the royal colleges of physicians and of surgeons, Sir W. Broadbent, Dr. Clifford Allbutt, regius professor of physic in the university, and Dr. Sims Woodhead, professor of pathology. As might be supposed, the accommodation for the study of medicine in this ancient university has fallen far behind modern requirements. The new buildings are thoroughly up to date and will be replete with every convenience. They are built of brick faced with Ancaster stone, and perfectly plain in style, without pretensions to architectural beauty, as is supposed to be fitting for a medical school. In the basement are workshops, storerooms, combustion and other experimental rooms, photographic rooms, engine house, electric lighting, heating and ventilation installations. On the ground floor are various private workrooms, large demonstration and examination rooms, the medical and surgical departments, and pharmacologic laboratories. There is a spacious entrance and staircase paved with black and white marble. At the foot of this staircase is a large lecture room capable of accommodating 200 students, while facing are the pathologic museum and two workrooms—one for pathology and the other, at present, for public health work. The lecture room receives practically no lighting from without, but is dependent on artificial light. This was done designedly so that all available light could be used for the workrooms. It was thought that in the lecture room artificial light would be better than natural light as the exact amount necessary for a demonstration could be focused on to map or screen and maintained there steadily. On the first floor is the Humphry Museum, so named after the late distinguished professor of surgery in the university. It is a finely proportioned room, 62 by 38 feet. The walls are lined with glazed tiles of a sea-green color, relieved with dull pink moldings. The cost of the museum was largely defrayed by subscriptions from Cambridge medical graduates, many of whom were pupils of the great Cambridge teacher. On the same floor is the library—a lofty room lighted from the top. An ingenious arrangement for stowing books in stacks has been adopted. Each separate block of cases is movable, allowing access to shelves behind, and a very large library to be housed in a moderate space. On this floor are also the private rooms of the regius professor of physic, a research room for members of his class, and an operating and a private room for the professor of surgery. On the second floor is a small museum for teaching purposes where the student will have access to all specimens and will be able to bring his text-books and note-books. Beyond this museum is a laboratory for pathologic chemistry, in connection with which is a photographic room. There are also a large practical class-room for morbid pathology lighted from the roof with accommodation for 90 students, and an incubating room. The greatest care has been taken in the details of equipment so as to provide the maximum of convenience for the worker. In the rooms for research and practical work hot and cold water, gas and electricity are laid on to every bench. The walls and ceilings are finished with a smooth concrete surface, all angles are rounded, and the walls join the ceilings and floors in curves, so that there are no corners for the collection of dirt. In his address the vice-chancellor of the university said that since the earliest times medicine had an honored place, and expressed the hope that it would now have a home worthy of its splendid progress in recent days. In replying the king said that he was confident that at Cambridge the progress would be continued, and that the old universities must succeed to new endowments for education if the realm was to be kept up to its proper standard of efficiency. In the library Prof. Sims Woodhead showed the working of the sliding bookcase, which he had chosen after seeing similar ones used in the United States. Pathologic specimens were arranged for the inspection of the king, who took particular interest in specimens of *Trypanosoma nagana* placed under a microscope.

Medical Education in London.

The great interest of the king in medical science is again shown by his communication to the Faculty of Medicine of the University of London in relation to the proposed institute of the medical sciences. Medical education in London has always been carried on by the various schools as a private enterprise, and is regarded by the public as so profitable that an appeal for funds is regarded by many as an impertinence. The recently established Polyclinic, the first attempt to provide graduate teaching on a large and systematic scale in London and to remove from the metropolis of the world the stigma of being far behind comparatively small continental cities, though badly in want of funds, has failed to appeal to the imagination of the philanthropic, and only has been able to get out of difficulties by donations from the profession. While munificent gifts can always be obtained for the needs of the sick poor it is thought that medical education is a matter entirely for the profession and one to be settled on business lines. The king has set an excellent example in abolishing this thoughtless view. To remedy the defects arising from the want of concentration of the teaching of the earlier subjects of the medical curriculum it is proposed to found an institute of the medical sciences. Last year the senate of the University of London appointed a committee of appeal to raise funds. At first it was determined not to make the appeal more public than was implied in sending a copy of it to every member of the faculty of medicine, in the hope that some individual or individuals of ample means might furnish sufficient to build and equip, if not to endow, the institute. This expectation was not realized. Then an appeal was made to the public through the lay press. When the matter came under the notice of the king he at once gave his support and contributed $520. The result of this will be a tremendous impetus to the fund, for in this country the public estimates individuals and things, not so much by their merits, as by the support and recognition they receive from persons in high social positions. The appeal has been most favorably received by the lay and medical press, and has been recommended by the treasurers of nine of the hospitals, to which medical schools are attached. Promises of contributions amounting to $40,000 have been received.

The Prevention of Consumption.

The fifth annual meeting of the National Association for the Prevention of Consumption has just been held. A very active campaign has been carried on. After a visit to Germany of a deputation from the National Conference of Friendly Societies to inquire into the German system of providing sanatorium treatment for the working class a further conference took place between the council of the association and delegates from the "Hospital Saturday Fund." The latter is a fund collected for the hospitals in the streets and workshops once a year on a particular Saturday. At the conference it was decided to form a national committee for the establishhment of sanatoria for workers suffering from tuberculosis. They have in the first instance been requested to ascertain the requirements of consumptive workers, the accommodations existing, and to suggest and organize a scheme for the promotion of such sanatorium accommodation as may be necessary. The council have done their best in the past five years to promote the voluntary notification of phthisis to the health officers throughout the country. This practice has been extending, and in Sheffield, owing to the strong representation by the health officer and one of the medical advisers of the local government board a committee of the house of commons recently sanctioned a corporation by-law for that city in which notification of pulmonary tuberculosis is made compulsory on every physician called on to visit a case. The report also gladly calls attention to the recent by-law of the London County Council prohibiting spitting in public places and carriages. As to the isolation of consumptive cases in workhouses and asylums, steps have been taken by some few boards of guardians to deal with the question not only of isolation, but of treatment, and with good results. With regard to consumption in the asylums for the insane a committee of the Medico-Psychological Association of Great Britain and Ireland have recently made a very full report, and suggestions which have received the approval of the council, who hope that the commissioners in lunacy will see that they are carried out. Considerable progress in the erection of sanatoria has been made during the year: there are now some 70 institutions in the United Kingdom containing 2,760 beds. This is an increase of 18 institutions and 375 beds over the return in October, 1902. But the majority of these institutions are for paying patients, and the need of providing accommodation for the poor is still urgent. The most important movement in connection with sanatorium work during the past year was the laying of the foundation of the King Edward VII Sanatorium, in Surrey, November 3, which has previously been described in The Journal. There are 935 members of the central association and 2,900 of the 20 branches, making a total of 3,835. In addition to these there are colonial branches or kindred associations in Canada, Victoria, New South Wales, South Australia, Natal, and Cape Colony. The movement for providing sanatoria accommodation for postal employes suffering from tuberculosis is making good progress. These employes suffer from tuberculosis in the proportion of 6 per 1,000. A proposal is on foot to establish 100 beds, to be increased later.

The Study of Tropical Diseases in Liverpool.

At the annual meeting of the Liverpool Royal Southern Hospital it was reported that 149 patients were admitted into the tropical diseases ward, against 137 and 131 in the years, 1902, and 1901, respectively. The majority of the patients were suffering from malarial diseases, other diseases being dysentery, beri-beri, bilharzia disease, craw-craw, etc. Students attend from all parts of the world—America, Chili, Spain, Portugal, Germany, Austria, Finland, Sweden and Norway.

Correspondence.

Osteotherapy in New York.

New York, March 26, 1904.

To the Editor:—A bill has been introduced in the legislature of the state of New York by Senator Fitzgerald, entitled "An Act to Define and Regulate the Practice of Osteotherapy." It is Senate bill No. 983, introductory No. 761, and has been referred to the committee on judiciary, of which Hon. Edgar T. Brackett is chairman.

This bill defines "osteotherapy" as follows: "The practice of osteotherapy is defined to be a system, method or science of healing disease without the use of drugs or medicine of any kind. It is based on the proven laws of anatomy and physiology, and comprises scientific and thorough knowledge of the structure and functions of the human mechanism, to apply certain organic laws and natural remedial resources, within the human organism itself, and by means of scientific manipulations and adjustment, assist nature, in harmonious accord with its own mechanical principles, activities and processes, to recover from displacements, derangements, obstructions and pressures, and to regain normal equilibrium of form, action and function, thus restoring to the patient normal health and strength. The word 'osteotherapy' is derived from the Greek ('osteon,' bone, and 'therapeia,' nature, healing). The word 'osteotherapy' is a correction of the word 'osteopath,' which latter means, translated from the Greek ('osteon,' bone, and 'pathy,' suffering), bone suffering. The word 'osteotherapy' embraces the science so-called osteopathy, the practice of massage and Swedish movements to its fullest extent, and any one practicing the latter sciences, under those or different names, shall come under the jurisdiction of this act."

It is difficult to imagine this as a serious effort to secure legislative enactment, for to read the definition is "to laugh"; but we must assume that the gentleman who introduced the bill was not actuated by the desire to amuse his colleagues. The measure goes on to provide for a board of examiners, appointed by the Regents of the University of the State of New York, for examination and registration fees, and so on. If physicians will write to the members of the Senate judiciary committee opposing this bill, its fate will not be long in doubt.

If you will publish this letter together with the inclosed reasons why "osteopathy" and allied "pathies" should not receive special recognition, it will bring the matter before the profession, and, I believe, aid those who are endeavoring to protect our professional standards. One of the arguments used at the public hearings before our legislature is that other states have enacted laws recognizing the practices of "osteopathy," "optometry," and other peculiar methods of treating disease. I can not believe that New York will ever enact similar laws unless some better reason than this is advanced. I do not believe that New York will enact any laws affecting the practice of the healing art unless the medical profession will indorse them. This opinion is the result of about eight years of more or less intimate acquaintance with our legislators, and, if it is correct, then, to use the language of the day, it is up to the medical profession to be alive to its responsibilities. Very truly yours,

Frank Van Fleet, M.D.,
Chairman Committee on Legislation of the Medical Society of the State of New York.

[The following are the reasons referred to above.]

REASONS WHY OSTEOPATHY, OSTEOTHERAPY AND OTHER PECULIAR METHODS OF TREATING DISEASE SHOULD NOT RECEIVE SPECIAL PRIVILEGES.

1. There are no methods of counteracting the results of disease, or of remedying or correcting physical defects, known to science, which are not known and practiced by qualified and competent physicians when such methods have in themselves any valuable properties.

2. The practice of medicine, or, to use the more comprehensive term, the treatment of disease, has not reached that degree of perfection where it is possible to say with exactness that a certain remedy is a certain cure under all conditions. Circumstances modify conditions, and it is only after weighing all the conditions present in a given case, and often after consultation with experts in special lines, that the remedy can be selected and properly applied; and even then, under what may seem to be the most favorable conditions, the results are not always satisfactory. Therefore, the state, recognizing how imperfect and uncertain the knowledge of the healing art is, has created a standard of proficiency with which all who desire the right to practice this art must comply. Not that such practitioners may be able to treat certain diseases; not with the idea of creating certain classes of practitioners, but with the single idea that all who hold themselves out as competent to practice the healing art shall have sufficient knowledge to recognize and discriminate the various diseases and defects, and to be familiar with and able to apply the known remedies. The state places in the hands of practitioners of the healing art extraordinary discretionary power; after receiving this power from the state these practitioners are responsible to nobody but themselves for the conscientious discharge of their duties. It would be manifestly improper for the law-making powers to confer privileges such as these on any but the most competent in order to make them as little a menace to the community as possible.

3. Osteopaths, or osteotherapaths, claim that the method they employ is not the practice of medicine. The person, be he supreme court judge or an ordinary citizen, who claims that the practice of medicine necessarily implies the giving of medicine or drugs, must have a very limited knowledge of the work of physicians. There are many physicians who have received the privilege from the state to practice medicine, and who would deny they were anything but practitioners of medicine, who rarely resort to drugs in the treatment of the affections they have to deal with. Indeed, it is quite as much the function of the medical practitioner to give advice as it is to give medicine; to apply other forms of treatment, as bath, rubbings, massage and manipulations, as it is to apply drugs. There is an ever-growing tendency to give fewer and fewer drugs in the treatment of disease, but no educated physician would be willing to undertake the treatment of any form of disease if he was denied the privilege of giving drugs and medicines if they seemed to be indicated, or indeed to be restricted in his treatment of disease to the employment of any one method. Whether the treatment of disease is the practice of medicine or not, one thing is certain: osteopaths and osteotherapaths desire the privilege possessed by licensed physicians, that of treating diseases. Not one disease, or any particular class or type of disease; they desire the right to undertake the treatment of all diseases, defects and infirmities indiscriminately, as physicians do, except that they are willing to be restricted to the employment of one method of treatment. This, as already stated, is in itself sufficient to condemn them as indicating the absence of knowledge of the scientific discoveries of the present time. No conscientious and educated physician would be willing to submit to a restriction of this kind.

4. The so-called theories of the so-called osteopaths or osteotherapaths, are positively dangerous. For example: They have recorded themselves at the hearings before the legislature of New York and other states as not believing in the contagiousness of certain diseases, as smallpox, scarlet fever, erysipelas, and so on. With this ignorance they would not realize the necessity for disinfection, and would go directly from attendance on a case of this kind to deliver a pregnant woman, and the result might be disastrous.

The denial of the value of antitoxins, of vaccination, and of the necessity for isolation and disinfection, together with the teaching of doctrines entirely at variance with accepted scientific facts, stamps these people as positively dangerous to the community. That they should ask the state to create a standard for them less rigid than that with which physicians generally have to comply, is evidence itself that their motive is neither honest nor honorable. If osteopaths, or osteotherapaths, really and honestly believed they were possessed of a knowledge, or had a method of treating diseases superior to the knowledge or methods of other physicians, they would not constantly endeavor to secure the legal right to employ their methods by compliance with a standard less than that already demanded by the state. The logical course to pursue would be to comply with the existing standard, and then demonstrate the superiority of their methods.

5. Osteopaths, or osteotherapaths, claim an extraordinary knowledge of anatomy and chemistry. If such a claim is a truthful one, it does not stamp the possessors of such knowledge as competent to practice the healing art. A knowledge of physiology and pathology is even more important and necessary. It will not do to say one does not believe in the accepted views of pathology and etiology unless one has a knowledge of them, and one can not have a knowledge of these branches unless one has devoted sufficient time to their study to acquire it. If four years of study are necessary to prepare and properly equip physicians, and osteopaths, or osteotherapaths, can secure the legal right to undertake the treatment of disease after only two years of preparation, some other class of practitioners will doubtless appear and urge, with equal reason and justice, that only one year of preparation is necessary to properly fit one to practice their method. It will not do for the state to discriminate; if any standard is necessary at all, it should be made to apply to all alike. Either this must be done, or, in justice to all practitioners of the healing art, all standards should be abolished, and the field thrown open to all comers. The latter course would be best for the doctors, but not so good for the community. The public generally can have but a limited knowledge of what is best in the way of remedies and methods in the treatment of disease. For its own protection the state creates medical laws, and, instead of lessening the requirements of these laws at the request of all sorts of fakirs who may come along, it would be better to make the requirements more rigid, and make the penalty for violation of the common law so severe and so easily enforced that quacks and charlatans of all kinds would keep clear of the state of New York.

Effect of Potassium Iodid on Urine.

Philadelphia, March 22, 1904.

To the Editor:—The following case is reported as a clinical note, not because it presents new or unusual features, but because it brings into question the propriety of a very common method of administration of one of our most commonly used drugs, and also because the reaction obtained in a specimen of the urine may not be familiar to all of your readers. The urine referred to was from a young tuberculous subject, whose case was observed in the Methodist Hospital in Philadelphia. The resident physician, Dr. Richmond, noted that on boiling the urine and adding a small quantity of nitric acid the fluid first assumed a deep claret color, and later, on the further addition of acid, a purplish tint which colored the foam and the fumes a brilliant purple also. At first it was suspected that the reaction was one to which attention has been repeatedly called by different observers, of a pink coloration produced by the addition of nitric acid to the urine of certain tuberculous patients. It was found, however, that this patient was receiving thirty grains of potassium iodid three times daily, and further tests showed that the reaction was undoubtedly due to the presence of iodin salts in the urine. After the addition of starch the urine became a dark blue at once upon adding a drop of nitric acid. This reaction occurred when the starch powder was suspended in the foam as actively as when the urine itself was tested. On further heating the specimen, to which nitric acid only (and no starch) had been added, the purple color was soon discharged, and on still further heating and the addition of small quantities of the acid the color became first amber, then yellow, and finally retained but the faintest tinge of straw color. The reaction appears of practical interest as indicating the excretion of excessive amounts of the drug, and amounts probably in excess of those assimilable by the system, even though there were no symptoms of iodism present. The discharge of iodin or its salts in the foam and vapor also suggests the possibility that in the formation of KI solutions by the druggist according to the customary methods much less of the drug is retained in the solution than is supposed, and much less, therefore, is administered in the drop dosage than is intended.

Robert N. Willson, Jr.

Hospital Experience Necessary for Licensure.

Somers, Mont., March 22, 1904.

To the Editor:—In the March 19 edition of The Journal, Dr. F. C. Bennett discusses the advisability of a compulsory interneship. He certainly makes some unwarranted statements. He says that none but sons of the wealthy can avail themselves of such a training. From my own personal experience, I know that a poor man can have a hospital training and I know many others beside myself who were poor, yet who spent a year or eighteen months in a hospital. I have practiced for a year in the backwoods of Montana and never yet have I been able to see where my hospital training hindered me. In fact, I have many times been thankful I have had such training. I can not conceive of a case in which a student fresh from college would have the advantage over a hospital-trained man. F. B. Bogardus, M.D.

Queries and Minor Notes.

Anonymous Communications will not be noticed. Queries for this column must be accompanied by the writer's name and address, but the request of the writer not to publish his name will be faithfully observed.

PATENT MEDICINES BARRED IN SWEDEN.

Pittsburg, Pa., March 23, 1904.

To the Editor:—I read the following in a local newspaper:

"*Patent Medicines Barred in Sweden; Pink Pills and the Like Not Wanted. Only One Druggist to Every 15,000 Persons.*

"Washington, March 22, 1904.

"Patent medicine men in the United States had best keep away from Sweden. This warning has been sent them by Minister Thomas, at Stockholm. Not a patent pill, bottle or preparation can now be obtained in the kingdom and the 350 apothecaries that control the medicine business of the entire country declare they will not handle any of that kind of trade. The importation of patent medicines, Minister Thomas says, would probably be followed by punishment of the offender and the confiscation of the medicines. In Sweden there is only one druggist to every 15,000 people, and the members of the profession consider themselves, Minister Thomas says, 'public officers and, in some sense, the guardians of the public health.'"

Blessed Sweden! What a boon such legislation would be to enlightened (?) America. Who among us has not felt the harassing effects of reckless, unscrupulous, almost criminal and certainly illegal dispensing and practicing by druggists? And worse still, in how many scores of cases have we seen the unhappy results of such practicing on our patients? Bad enough to thrust these countless hundreds of "patent medicines" (patent poisons many) on an ignorant and gullible public and flaunt their advertisements in our faces at every turn. But to have our druggists, who *should* be "guardians of the public health," urge the suffering patient to use his wares, knowing that many of them are either worthless or injurious, and often even dissuading him from consulting a physician, is indeed a disgrace to our beloved country. Is there no remedy? J. M.

ACID DUODENAL MEDICATION.

Atlanta, Ga., March 22, 1904.

To the Editor:—I read on page 804 of The Journal, March 19, an abstract on "Acid Duodenal Medication." I have some patients who need just this treatment. I can not get the tartaric acid in gluten-coated capsules here. Can you tell me where these can be obtained and how much Dr. Enriquez gives the patient? I am very much interested in this treatment and will thank you very much for all the information you may give me on this line.

J. E. Ashcraft.

Answer.—We are unable to learn of any drug firm that makes such a pill, but any of them will make the pills to order. Perhaps your druggist can do it. Dr. Ed. Enriquez states that he obtained satisfactory results from the simple ingestion of a 3 per cent. hydrochloric acid "lemonade," sipped every fifteen minutes at the time when the duodenal medication may be assumed to be most needed, approximately three to four hours after meals. This proved particularly effective in the cases that may be called neuromotor dyspepsia. It was in attempting to improve on this method that he hit on the idea of the more localized acid duodenal treatment by the gluten-coated capsules of tartaric acid. They were made for him by Dr. Carrion, chief of the laboratory at the Saint-Antoine Hospital, Paris. Dr. Enriquez does not seem to think that the tartaric acid has any special advantages; he merely happened to select that acid. In his published communication on the subject there is no mention of the dosage.

SALE OF PRACTICE.

Cedar Springs, Mich., March 22, 1904.

To the Editor:—I made a verbal agreement to buy another physician out, buying his good will, drugs, furniture in office, office building and house and lot. I paid him $200 to apply on account and took his receipt. He took me into his office and introduced me to his patients for nearly three months. When the time for settlement came his wife refused to sign the deed, having changed her mind in regard to moving. Now I am suing him to fulfill contract. I am told that The Journal contained a decision bearing on almost a similar case. I take The Journal, but did not happen to see it. Can you give me any information on the subject?

Chas. W. Brayman, M.D.

Answer.—Consult The Journal, Sept. 19, 1903, page 735; Nov. 28, 1903, page 1364; Jan. 9, 1904, page 122.

TO REMOVE FRECKLES.

Caldwell, Kan., March 23, 1904.

To the Editor:—Please give me a prescription for removing freckles, either by drugs or mechanical. D. E. K.

Answer.—Stevens recommends the following, applied twice daily:

℞. Hydrarg. chlor. corros................gr. iv to viii
Alcoholis et aquæ, of each q. s. ad............℥iv

Bartholow suggests:

℞. Potassii carbonat............................ʒiii
Sodii chloridi..................................ʒii
Aquæ rosæ.....................................℥viii
Aquæ aurantii flor.............................℥ii
M. Sig. Use as a lotion.

Remember that freckles usually return after removal.

LATENT GONORRHEA OR SIMPLE URETHRITIS.

Macon, Ga., March 20, 1904.

To the Editor:—Can a genuine gonorrhea be present when all the symptoms are present and are very marked, but when a careful microscopic examination shows no gonococci, but an abundance of staphylococci? G. W. Roberson, M.D.

Answer.—Yes. It may be hidden and the gonococci may appear under excitement or after drinking intoxicants. On the other hand, this may be a non-specific urethritis. What the physician should advise in such a case is one of the most delicate problems that comes to him.

PROMPT SETTLEMENT OF PHYSICIANS' BILLS.

We have been shown a receipted bill from a physician in the southwest on which the following is printed: "A PROMPT SETTLEMENT of this bill is requested and expected. If bills are paid monthly a discount of 10 per cent. is given. Bills not paid promptly will be passed to my attorney for collection, unless by special agreement. If you pay your physician promptly he will attend you promptly, night or day, rain or shine, while your slow-going neighbor suffers and waits, as he made the doctor wait; and while he is waiting the Angels gather him in."

WISCONSIN BOARD.

Dr. N. A. R.: The secretary of the Wisconsin State Board of Registration in Medicine is Dr. Filip A. Forsbeck, Milwaukee.

Marriages.

G. E. Milton Smith, M.D., to Mrs. Margareta M. Smith, at Baltimore, March 23.

G. Wishart Slater, M.D., to Mrs. M. L. Rabold, both of Baltimore, March 16.

Marcus Feingold, M.D., to Miss Birdie Lowenberg, both of New Orleans, March 23.

Robert J. Rivers, M.D., Paducah, Ky., to Miss Janet Bush of Smithland, Ky., March 22.

John Stewart Kulp, M.D., U. S. Army, to Miss Zoe Worthington-Smith, at Philadelphia, March 23.

Deaths.

Elisha Peckham Clarke, M.D. Medical School of Maine, at Bowdoin College, Brunswick, 1863, fellow of the Rhode Island Medical Society, and its president in 1895 and 1896; president of the South County Medical Society in 1878; state senator in 1878, 1879 and 1880; medical examiner for the town of Hopkinton; surgeon in the Thirty-first Massachusetts Volunteer Infantry in the Civil War, died at his home in Hope Valley, R. I., March 17, after an illness of several weeks, aged 70.

Aaron Rysing Gleason, M.D. University of Georgetown, Washington, D. C., 1864, hospital steward and assistant surgeon during the Civil War, a member of the American Medical Association, member of the New Hampshire legislature in 1897;

fellow of the New Hampshire Medical Society, and a member of the Cheshire County Medical Society, died at his home in Keene, N. H., March 4, from pneumonia, after an illness of three days, aged 68.

Abraham H. Hunt, M.D. Long Island College Hospital, Brooklyn, 1862, a member of the American Medical Association; surgeon during the Civil War, and for many years prominent as a surgeon in Wooster, Ohio, died at his home in that city, March 16, from heart disease, after a prolonged illness.

Henry C. Gemmill, M.D. Rush Medical College, Chicago, 1868, a member of the American Medical Association, Huntington County Medical Society, and Indiana State Medical Society, died at his home in Markle, Ind., March 18, after an illness of several months, from chronic nephritis.

Farquhard Campbell, M.D. University of Michigan, Ann Arbor, 1883, for eight years superintendent of the Osawatomie State Hospital, was stricken with apoplexy at his office in Kansas City, Kan., March 17, and died at Bethany Hospital four hours later, aged 47.

John Chester Lyman, M.D. Harvard University Medical School, Boston, 1872, who retired from practice nearly 20 years ago, died at the German-American Hospital, Chicago, from valvular heart disease, after an illness of about six months, March 29, aged 53.

Amos Seip, M.D. University of Pennsylvania, Philadelphia, 1848, one of the founders of the Northampton County Medical Society, in which he had filled practically every office, died from paralysis at his home in Easton, Pa., March 21, aged 81.

Fred A. Fanyo, M.D. University of Illinois, Chicago, 1903, of Watseka, Ill., an interne at Cook County Hospital, Chicago, assistant to the chair of clinical diagnosis in his alma mater, died at the hospital, March 22, from pneumonia, aged 26.

Derrick P. January, M.D. Tulane University, New Orleans, 1860, a surgeon in the Confederate service during the Civil War, died at his home in Crowley, La., March 17, from cerebral [illegible]rrhage, after an illness of a few hours, aged 65.

Frank H. McElroy, M.D. Tufts College Medical School, Boston, 1903, assistant pathologist to the Rhode Island Hospital, a bacteriologist of promise, died at his home in Providence, R. I., March 18, after a brief illness, aged 26.

Josias S. Duff, M.D. Columbus (Ohio) Medical College, 1881; Bellevue Hospital Medical College, New York, 1888, died recently at his home in Allegheny, Pa., from carbolic acid, accidentally taken, aged 49.

Thomas R. McInnes, M.D. Toronto (Ont.) University Medical Faculty, 1869, formerly senator and lieutenant governor of British Columbia, died recently from heart disease at his home in Victoria, B. C.

Myron Northrup, M.D. Geneva (N. Y.) Medical College, 1859, for 33 years a resident, and in 1886 mayor of Port Huron, Mich., died at his home in that city, March 15, aged 67.

Alanson P. Burch, M.D. Wooster University, Cleveland, 1888. of Toledo, died from paralysis at the Toledo Infirmary, March 21, after an invalidism of four years, aged 67.

Edward N. Gerard, M.D. Medical Department of the University of Iowa, Keokuk, 1861, died at his home in Mesa, Ariz., March 18, after a long illness, aged 67.

Adolph O. Heiberg, M.D. Jefferson Medical College, Philadelphia, 1893, of Rushford, Minn., died at Northfield, Minn., March 18.

J. G. Cannon, M.D. Physio-Eclectic Medical College, Cincinnati, 1876, died at his home in Yuba City, Cal., March 17, aged 78.

Augustus J. Fuchs, M.D. Jefferson Medical College, Philadelphia, 1876, died at his home in Mascoutah, Ill., March 14, aged 56.

William Mosby Mercer, M.D., a surgeon in the Confederate service during the Civil War, died in Baltimore, March 24, aged 76.

William Goodall, M.D. Illinois, 1878, died at his home in Chicago, recently, from disease of the stomach, aged about 60.

Gabriel Henry Chabot, M.D. University of Maryland, Baltimore, 1883, died at his home in Baltimore, March 23, aged 43.

Frank I. Phillips, M.D. Detroit Medical College, 1882, died at his home in Escanaba, Mich., March 22, after a long illness.

Benjamin F. Taylor, M.D. Missouri Medical College, St. Louis, 1843, died at his home in New Orleans, March 18, aged 79.

Michael Mason, M.D. Tennessee, 1864; Michigan, 1890, died at his home in Muskegon Heights, Mich., March 23.

Joseph S. Tweddle, M.D. University of the Victoria College, Cobourg, Ont., 1889, died suddenly at his home in Sturgeon Bay, Wis., after an illness of several months.

Book Notices.

DISEASES OF THE EYE. By L. Webster Fox, A.M., M.D., Professor of [illegible] Medico-Chirurgical College of Philadelphia. [illegible] 'lates and 296 Illustrations in the Text. Cl[illegible], $4.00. New York and London: D. Appleton & Co. 1904.

This book is dedicated to the memory of Ludwig Mauthner of the University of Vienna, the author's teacher, who he describes as the greatest operator of his day. The author declares that the treatise is the outgrowth of a series of lectures delivered during the last ten years at the Medico-Chirurgical College and Hospital. The book is, therefore, of a practical character, is divested of hazy theories, and is written in a plain and masterful manner. Of course, a great deal of the book is necessarily a rehash of other books, but Dr. Fox has brought each subject thoroughly up to date. It is a valuable addition to ophthalmologic literature, and will be of especial value to the student and general practitioner, who desire to keep well posted in this special avenue of labor. Considerable space is justly given to the therapeutics of the *x*-ray, which, considering the growing interest in this subject, will be appreciated by the reader. The book is well and comprehensively indexed, and also possesses a most intelligible glossary of all necessary ophthalmologic names and expressions. There are many good and new illustrations, and some old and bad ones. It seems strange that in a new text-book, with all modern facilities for photography, drawings and colored impressions, that it is still necessary to give place to such time-honored illustrations as may be found scattered through this as well as through all other modern works on ophthalmology. Still it can be truthfully said of the book under review that there are fewer ancient pictures within its covers than are to be found in any other ophthalmologic text-book with which we are familiar. Miss Washington's colored drawings are, as usual, the best of their kind. The author's large and varied experience, combined with a natural surgical intuition and enthusiasm, and with a decided ability to write and describe what he has to say, in clear, distinct, comprehensive language, serves to render this text-book one of real value to all students, ophthalmologists and general practitioners.

PORTFOLIO OF DERMOCHROMES. By Professor Jacobi of Freiburg im Breisgau. English Adaptation of Text by J. J. Pringle, M.B., F.R.C.P., Physician to the Department for Diseases of the Skin at the Middlesex Hospital, London. Volume II. Leather and Cloth. Pp. 181. Price per set, $15.00. New York: Rebman Company. 1903.

The diagnosis of skin diseases, even by the specialist, is often a difficulty, and the general practitioner frequently meets cases that are more than puzzling. To describe in words the characteristics of most of the skin infections is an impossibility, and for this reason all works on this subject, if not accompanied with illustrations, are deficient. And even then, simply black and white pictures are usually unsatisfactory. The recent development of three and four color printing has made it possible to show practically true to nature every kind of eruption. The second volume of Jacobi's atlas of skin diseases has, like the first, illustrations of this character; they show the disease exactly as it appears to the eye. The work, as a whole, is intended for the general practitioner, and consequently includes the commoner forms of skin diseases, and not the unique and rare. The exanthemata—such as scarlatina, measles, smallpox, etc.—are all covered. While the value of the work rests principally in its illustrations, yet the accompanying text will be found satisfactory. It is clear and to the point, and, while not voluminous, it contains sufficient details and descriptive matter relative to clinical features, prognosis and treatment to make the work reasonably complete in itself, and one that can be commended to those who desire an atlas in skin diseases. *It is* to be regretted that an index is not included; a book of this character should be one of ready reference, but this is impossible without a good index.

Hegele's Physicians' Account Record. A Card Index Record for Keeping Physicians' Accounts, Appointments, Records and Memoranda; Consisting of a Daily Record Card for Each Day in the Year, and a Yearly Account Card for Each Family or Patient, Contained in a Specially Constructed Wood Tray with Monthly, Daily, Alphabetical and Open and Closed Account Guide Cards, Together with an Imported Seal Leather Prescription Book and Card Holder. Complete $10. Trial Offer $5. Chicago: Box A 1055, Hegele's Physicians' Account Record.

This is not a book, but it takes the place of the books which most physicians use for the purpose. Card index records are taking the place of ledgers, journals and blank books throughout the business world to a marked degree because of their superiority. This card index record is asserted to be an entirely new and modern method for keeping physicians' accounts, records, appointments and memoranda, and if we accept the warm recommendations of some of the prominent physicians and surgeons who have used it, it will be a valuable addition to any practitioner's equipment. A description is of little value without the cards to illustrate it, so we will merely say that this record seems very simple, accessible and practical and so compact, complete, easily kept and accurate that it is said to entirely overcome all difficulties of that bane of existence, "bookkeeping," and to stand the test of the courts. There is very little writing to be done, as the record itself is gotten up in so complete a manner that it does away with the usual amount of writing necessary with the old methods of keeping books and use of signs.

Essential of Pelvic Diagnosis with Illustrative Cases. By E. Stanmore Bishop, F.R.C.S. Eng., Hon. Surg. Ancoats Hospital, Manchester. And an Appendix on Examination of Blood, etc. By Chas. H. Melland, M.D., (Lond.) M.R.C.P., Hon. Physician Ancoats Hospital, Manchester. Cloth. Pp. 297. Price, $3.00 net. New York: William Wood & Co. 1903.

This volume, which does not pretend to supplant the regular works on gynecology, is simply a statement of the principal diagnostic points that are to be observed from the viewpoint of the practitioner, who sees the symptoms without necessarily a previous knowledge of the disease. The inductive rather than the deductive method, is followed, and the plan appears a good one, though it is not new. The book is divided into five parts: 1, Pelvic diagnosis, giving the methods; 2, lines of diagnosis, describing the symptoms; 3, diagnostic tables, in which the symptoms are grouped and tabulated according to the conditions which they should indicate; 4, illustrative cases to demonstrate the manner in which the foregoing data should be employed; 5, a useful though brief description of the blood examinations and methods. The work has an excellent index, in which each subject has given in parallel columns the pages on which it is treated in the various subdivisions of the work—a plan which we have not heretofore seen adopted.

A Text-Book of Legal Medicine and Toxicology. Edited by Frederick Peterson, M.D., Chief of Clinic, Nervous Department of the College of Physicians and Surgeons, New York; and Walter S. Haines, M.D., Professor of Chemistry, Pharmacy and Toxicology, Rush Medical College, in Affiliation with the University of Chicago. In Two Volumes. Fully Illustrated. Cloth. Vol. II. Pp. 750. Price, $5.00. Philadelphia, New York, London: W. B. Saunders & Co. 1903.

The first volume of Peterson and Haines' work on medicolegal medicine has already been noticed. This second volume keeps up the character of the first. The editors have been able to obtain a very competent corps of collaborators on the various subjects included. In the first section of the work the subjects of malingering, questions of pregnancy and venereal diseases, birth, legitimacy, etc., marriage, divorce, malpractice, laws relating to insanity and the medicolegal relations of the *x*-rays are all treated of. The second portion is devoted to toxicology, as well as the medicolegal examination of the blood, seminal stains, etc. The book is fully illustrated, ample in its elaborate references and will undoubtedly be long a standard work of reference on this subject.

Blood-Pressure in Surgery, An Experimental and Clinical Research. The Cartwright Prize Essay for 1903. By George W. Crile, A.M., M.D., Professor of Clinical Surgery, Western Reserve Medical College. Cloth. Pp. 422. Price, $4.00. Philadelphia and London: J. B. Lippincott Co. 1903.

This volume contains the account of Crile's experiments on blood pressure and shock, and the details fill the greater portion of its pages. The practical importance of his results is evident, especially as regards operative surgery. As he says in the final summary: "In many instances the control of the blood pressure is the control of life itself," and he demonstrates that by proper methods of controlling it we may almost resuscitate the dead. The facts that a decapitated dog was kept alive as regards its vegetative functions for many hours, and the partial resuscitation of a man who had died from fatal injury of the brain, are indications of the possibilities of the method here described. The fact that the memoir has received the Cartwright prize, is sufficient evidence of its merit. The author is careful to state that all his experiments were conducted under full anesthesia, thus forestalling the criticisms of the antivivisectionists.

International Clinics. A Quarterly of Illustrated Clinical Lectures [illegible] Articles on Treatment, Medicine, [illegible] Obstetrics, Gynecology, Orthopedic[illegible] [illegible]almology, Otology, Rhinology, Laryn[illegible] [illegible]s of Interest to Students and Pract[illegible] of the Medical Profession Throughout the World. Edited by A. O. J. Kelly, A.M., M.D., Philadelphia, with the [illegible] [illegible] Osler, M.D., Baltimore; John H. Musser [illegible] Jas. Stewart, M.D., Montreal; J. B. Murp[illegible] A. McPhedran, M.D., Toronto; Thos. M. Rot[illegible] John G. Clark, M.D., Philadelphia; James J. [illegible]rk; J. W. Ballantyne, M.D., Edinburgh: John Harold, M.D., London; Edmund Landolt, M.D., Paris, and Richard Kretz, M.D., Vienna. With Regular Correspondents in Montreal, London, Paris, Berlin, Vienna, Leipsic, Brussels and Carlsbad. Vol. IV. Thirteenth Series, 1904. Cloth. Pp. 321. Price, $2.00 net. Philadelphia: J. B. Lippincitt Co. 1904.

This serial appears with its usual excellent collection of contents covering special subjects in the departments of general treatment, medicine, surgery, gynecology, neurology, orthopedics, ophthalmology and pathology. The list of authors includes not merely American, but also prominent European authorities, such as Julien, Dyce Duckworth and others. It is unnecessary to say anything further to commend the work. The series can be profitably read by the average practitioner.

A Short Practice of Gynecology. By Henry Jellett, B.A., M.D., B.Ch., B.A.O. (Dublin Univer[illegible]), F.R.C.P.I., L.M.; Ex-assistant Master, Rot[illegible] [illegible] Second Edition, Revised and Enlarged. With 223 [illegible] Cloth. Pp. 406. Price, $3.75. London: J. & A. Churchill. *Philadelphia*: P. Blakiston's Son & Co. 1903.

This is the second edition of an English work, which is a very fair example of the briefer treatises on this important subject. We can not call it an exhaustive one nor recommend it in place of the fuller works. While its handling of the subject is generally judicious, and the illustrations and descriptions are clear, it does not meet the requirements either of the specialist or of the general practitioner.

Clinical Treatises on the Pathology and Therapy of Disorders of Metabolism and Nutrition. By Prof. Dr. Carl von Noorden, Physician in Chief to the City Hospital, Frankfurt a. M. Authorized American Edition Translated under the Direction of Boardman Reed, M.D., Professor of Diseases of the Gastro-intestinal Tract, Hygiene and Climatology, Department of Medicine, Temple College. Part IV. The Acid Autointoxications. By Prof. Dr. Carl von Noorden and Dr. Mohr. Cloth. Pp. 80. Price 50 cents. New York: E. B. Treat & Co. 1903.

Dr. Boardman Reed has done a service to American readers in having von Noorden's studies translated into English. In this little volume the acid intoxications are taken up and treated as the author's reputation might lead us to expect. The translation is well done.

The Gazette Pocket Speller and Definer. English and Medical. Second Edition. Flexible Leather. Pp. 216. Price 50 cents. New York: The Gazette Publishing Co.

This little dictionary, which the compiler says is intended primarily as a speller, is very handy and will doubtles be received with favor by the general, and especially the medical, public. Nearly half of the work is a medical dictionary and while, of course, it is not so full as others, it contains the larger portion of the medical terms which are sought for by the reader for information as regards definitions and spelling. The type is good, it seems to be free from errors and is a very convenient vest-pocket reference book.

The Practice of M[illegible] [illegible]or Practitioners and Students, with [illegible] [illegible]ls and Treatment. By James Tyson [illegible] [illegible] in the University of Pennsylvania. Rewritten. Wit[illegible] [illegible]evised and in Parts Cloth. Pp. 1,24[illegible] [illegible]g Colored Plates. & Co. 1903. [illegible] P. Blakiston's Son

The third edition of Tyson's Practice has been revised in certain points and the author has sought to make its contents represent the more important ideas in medicine. The enlargement has been mainly in the treatment of infectious diseases and he has had the chapter on nervous diseases carefully revised by so competent a neurologist as William G. Spiller, which guarantees its accuracy and fullness to date. Another subject which has also had revision is that of dysentery, it being carefully revised by Dr. Simon Flexner, one of the first authorities on the subject. In its present form the book is one that can be safely recommended.

Miscellany.

THE HEYBURN PURE FOOD AND DRUG BILL.

Text of the Bill in Full, with Comments by the Author of this Important Measure.

Four weeks ago we gave an abstract of this bill, but it is of such great importance to the public and to the profession that we give it in full. It is known as H. R. 6295, Calender No. 1165. The following is the bill:

AN ACT.

For preventing the adulteration or misbranding of foods or drugs, and for regulating traffic therein, and for other purposes:

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the introduction into any State or Territory, the District of Columbia, or insular possession from any other State or Territory, the District of Columbia, or insular possession, or from any foreign country, or shipment to any foreign country of any article of food or drugs which is adulterated or misbranded within the meaning of this Act is hereby prohibited; and any person who shall ship or deliver for shipment from any State or Territory, the District of Columbia, or insular possession to any other State or Territory, the District of Columbia, or insular possession, or to a foreign country, or who shall receive in any State or Territory, the District of Columbia, or insular possession from any other State or Territory, the District of Columbia, or insular possession, or foreign country, or who, having received, shall deliver in original unbroken packages for pay or otherwise, or offer to deliver to any other person y such article so adulterated or misbranded within the meaning f this Act, or any person who shall sell or offer for sale in the District of Columbia, the Territories, or insular possessions of the United States such adulterated or misbranded foods or drugs, or who shall export or offer to export the same to any foreign country, shall be guilty of a misdemeanor, and for such offense be fined not exceeding two hundred dollars for the first offense, and for each subsequent offense not exceeding three hundred dollars, or be imprisoned not exceeding one year, or both, in the discretion of the court.

Sec. 2. That the Chief of the Bureau of Chemistry in the Department of Agriculture shall make or cause to be made, under rules and regulations to be prescribed by the Secretary of Agriculture, examinations of specimens of foods and drugs offered for sale in original unbroken packages in the District of Columbia, in any Territory or insular possession, or in any State other than that in which they shall have been respectively manufactured or produced, or from any foreign country, or intended for shipment to any foreign country, which may be collected from time to time in various parts of the country. If it shall appear from any such examination that any of the provisions of this Act have been violated, the Secretary of Agriculture shall cause notice to be given to the parties concerned with opportunity to be heard under such rules and regulations as may be prescribed by the Secretary of Agriculture, and if after such hearing it is found that any of the provisions of this Act have been violated, then the Secretary of Agriculture shall at once certify the facts to the proper United States district attorney, with a copy of the results of the analyses, or examination, duly authenticated by the analyst, or officer making such examination under oath.

Sec. 3. That it shall be the duty of every district attorney to whom the Secretary of Agriculture shall report any violation of this Act, or to whom any person, acting either on his own behalf or as the officer or agent of any State or Territory, the District of Columbia, or insular possession, shall present satisfactory evidence of any such violation, to cause proceedings to be commenced and prosecuted without delay for the fines and penalties in such case provided.

DEFINITIONS.

Sec. 4. That the term "drug," as used in this Act, shall include all medicines and preparations recognized in the United States Pharmacopœia for internal and external use; also any substance intended to be used for the cure, mitigation, or prevention of disease. The term "food," as used herein, shall include all articles used for food, drink, confectionery, or condiment by man or domestic animals, whether simple, mixed, or compound.

ADULTERATIONS AND MISBRANDING.

Sec. 5. That for the purposes of this Act an article shall be deemed to be adulterated—

In case of drugs:

First. If, when a drug is sold under or by a name recognized in the United States Pharmacopœia, it differs from the standard of strength, quality, o[illegible] by the test laid down in the United States [illegible] at the time of the investigation: Provided, That no drug shall be deemed to be adulterated under this provision if the standard of strength, quality, or purity be plainly stated upon the bottle, box, or other container thereof, although such standard may differ from that determined by the test laid down in the United States Pharmacopœia.

Second. If its strength or purity fall below the professed standard under which it is sold.

That such drug shall be deemed to be misbranded:

First. If it be an imitation of or offered for sale under the name of another article.

Second. If the package containing it or its label shall bear any statement regarding the ingredients or the substances contained therein, which statement shall be false or misleading in any particular, or if the same is falsely branded as to the State or Territory or place in which it is manufactured or produced.

In the case of confectionery an article shall be deemed to be adultered:

If it contain terra alba, barytes, talc, chrome yellow, or other mineral substances or poisonous colors or flavors, or other ingredients deleterious or detrimental to health.

In the case of food an article shall be deemed to be adulterated:

First. If any substance or substances has or have been mixed and packed with it so as to reduce or lower or injuriously affect its quality or strength.

Second. If any substance or substances has or have been substituted wholly or in part for the article.

Third. If any valuable constituent of the article has been wholly or in part abstracted.

Fourth. If it contain any added poisonous or other ingredient which may render such article injurious to the health of the person consuming it: Provided, That goods intended for export shall not be deemed misbranded or adulterated when prepared and packed in accordance with specifications of the foreign purchaser, provided no substance is used that is in conflict with the laws of the country to which the goods are to be shipped, when such country, having laws upon the subject, does not prohibit such process.

Fifth. If it consists in whole or in part of a filthy, decomposed, or putrid animal or vegetable substance, or any portion of an animal unfit for food, whether manufactured, or not, or if it is the product of a diseased animal, or one that has died otherwise than by slaughter.

An article of food shall be deemed to be misbranded:

First. If it be offered for sale under the distinctive name of another article: Provided, That the term "distinctive name" shall not be construed as applying to any article sold or offered for sale under a name that has come into general use to indicate the class or kind of the article if the name be accompanied on the same label or brand with a statement of the place where said article has been manufactured or produced.

Second. If it be mixed, colored, powdered, or stained in a manner whereby damage or inferiority is concealed, so that such product, when sold or offered for sale, shall deceive or tend to deceive the purchaser.

Third. If it be labeled or branded with intent so as to deceive or mislead the purchaser, or purport to be a foreign product when not so, or is an imitation, either in package or label, of another substance of a previously established name, or which has been trade-marked or patented.

Fourth. If the package containing it or its label shall bear any statement, design or device regarding the ingredients or the substances contained therein, which statement, design, or device shall be false or misleading in any particular, or if the same is falsely branded as to the State, Territory, or place in which it is manufactured or produced:

Provided, however, That an article of food which does not contain any added poisonous or deleterious ingredients shall not be deemed to be adulterated or misbranded in the following cases:

First. In the case of mixtures or componds which may be now or from time to time hereafter known as articles of food, under their own distinctive names, and not included in definition first of misbranded articles of food in this section.

Second. In the case of articles labeled, branded, or tagged so as to plainly indicate that they are mixtures, compounds, combinations, imitations, or blends: *Provided, That the same* shall be labeled, branded, or tagged so as to show the character and constituents thereof. And provided further, That nothing in this Act shall be construed as requiring or compelling proprietors or manufacturers of proprietary foods which contain no unwholesome added ingredients to disclose their trade formulas, except in so far as the provisions of this Act may require to secure freedom from adulteration or imitation: Provided further, That no dealer shall be convicted under the provisions of this Act when he can establish a guaranty signed by the wholesaler, jobber, manufacturer, or other party from whom he purchases such articles to the effect that the same is not adulterated or misbranded within the meaning of this Act, designating it: And provided further, That said guarantor or guarantors reside in the United States. Said guaranty, to afford protection, shall contain the name and address of the party or parties making the sale of such article to such dealer, and said party or parties shall be amenable to the prosecutions, fines, and other penalties which would attach, in due course, to the dealer under the provisions of this Act.

Sec. 6. That every person, company, or corporation who manufactures or produces and delivers for interstate or foreign shipment or transportation, or who receives from any State, Territory, or the District of Columbia, or insular possession or foreign country, other than the State, Territory, District of Columbia, or insular possession in which it is received, and any person, company, or corporation who sells or exposes for sale in any Territory, or the District of Columbia, or insular possession, any article of food or drug shall furnish, within business hours and upon tender and full payment of the selling price, a sample of such drug or article of food to any person duly authorized by the Secretary of Agriculture to receive the same, and in any Territory, or the District of Columbia, or insular possession, to any officer or agent of such Territory or District, respectively, charged with the inspection of food or drugs in such jurisdiction, and who shall apply to such manufacturer, producer, or person, company, or corporation selling or exposing for sale as aforesaid such drug or article of food for such sample in sufficient quantity for an analysis of any such article or articles in his possession.

Sec. 7. That any manufacturer, producer, or dealer who refuses to comply, upon demand, with the requirements of section six of this Act shall be guilty of a misdemeanor, and upon conviction shall be fined not exceeding one hundred dollars or imprisonment not exceeding one hundred days, or both. And any person found guilty of manufacturing or offering for sale, or selling, any adultered, impure, or misbranded article of food or drug in violation of the provisions of this Act shall be adjudged to pay, in addition to the penalties hereinbefore provided for, all the necessary costs and expenses incurred in inspecting and analyzing such adulterated articles which said person may have been found guilty of manufacturing, selling, or offering for sale.

Sec. 8. That any article of food or drug that is adulterated or misbranded within the meaning of this Act, and is being transported from one State to another for sale, or having been transported, remains unloaded, unsold, or in original unbroken packages, or if it be sold or offered for sale in the District of Columbia and the Territories of the United States, or if it be imported from a foreign country for sale, or if intended for export to a foreign country, shall be liable to be proceeded against in any district court of the United States within the district where the same is found and seized for confiscation by a process of libel for condemnation. And if such article is condemned as being adulterated or misbranded within the meaning of this Act the same shall be disposed of by destruction or sale, as the said court may direct, and the proceeds thereof, if sold, less the legal costs and charges, shall be paid into the *Treasury of the* United States, but such goods shall not be sold in any State contrary to the laws of that State: Provided, however, That upon the payment of the costs of such libel proceedings and the execution and delivery of a good and sufficient bond to the effect that such articles shall not be sold or otherwise disposed of contrary to the provisions of this Act, or the laws of any State, *Territory, or laws enacted for* the District of Columbia, the court may order direct that such articles be delivered to the owner thereof. The proceedings of such libel cases shall conform, as near as may be, to proceedings in admiralty, except that either party may demand trial by jury of any issue of fact joined in such case and all such proceedings shall be at the suit of and in the name of the United States.

Sec. 9. That this Act shall not be construed to interfere with commerce wholly internal in any State, nor with the exercise of their police powers by the several States: Provided further, That nothing in this Act shall be construed to interfere with legislation now in force, enacted either by Congress for the District of Columbia or by the Territorial legislatures for the several Territories, regulating commerce in adulterated foods and drugs within the District of Columbia and the several Territories, except wherein such legislation conflicts with the provisions herein.

Sec. 10. That the provisions of this Act shall not apply to common carriers, or their servants, agents, or employes.

Sec. 11. That this Act shall take effect and be in force from and after the first day of January, nineteen hundred and five.

Passed the House of Representatives January 19, 1904.

Bearing on the above we quote from two letters written by Senator Heyburn to Dr. Reed, chairman of the Committee on Medical Legislation of the American Medical Association.

United States Senate, Committee on Manufactures.

March 16, 1904.

. . . . I presume that you are familiar with both the House and Senate bills, known as the Hepburn bill and the McCumber bill, respectively. In our judgment, the Senate bill covers the question fully, and we hope to secure its passage at an early date. It has been fought by the patent-medicine trade, and also by the blenders of whisky, as well as by a number of other concerns desiring to avoid the exposition of their methods, which the bill would injure if enacted into law.

Letters from physicians commending and urging the passage of the bill will be of material assistance. The patent-medicine contingent and others opposed to the bill are inundating the members of the Senate with telegrams and letters, which would be well counteracted by expressions of opinion from physicians. In my judgment, the physicians next to the patients are most interested in the purity of medicines and foods.

(Signed) W. B. Heyburn.

March 18, 1904.

I have received many letters from physicians urging the passage of the Pure Food bill now pending before the United States Senate and reported by the committee of which I am chairman, but they all designate it by its House number—6295. The Senate committee have made some changes in the House bill, which, we think, are for the benefit of the measure. These changes are to be found embodied in the Senate bill, which was reported as a substitute for the House bill, a copy of which I hand you herewith. You will notice that the bill still bears the House number, but not the text of the House bill. The Senate bill drops out Sections 1 and 7 of the House bill, and avoids the creation of a new and expensive department. It also leaves out the provision of the House bill under which the Secretary of Agriculture should establish *standards*, and in lieu thereof makes the American Pharmacopeia the standard of purity, etc., as to everything within its scope, and provides in addition thereto, "also any substance to be used for the cure, mitigation or prevention of disease."

The committee is advised that the American Pharmacopeia has not been revised for about twelve years, and that it is *at most* only published every ten years. It is, therefore, apparent that the vast number of medicines, patented or otherwise, which come into existence and use between the periods of publication of the Pharmacopeia, should be included within the scope of the protection intended by the bill. The attention of the committee was called to many of these patent medicines and other "catchpennies," and it was deemed by the Senate committee necessary to have some general principle that would include the determination of the articles not included within the Pharmacopeia, by such rules as the courts may establish, and the courts will undoubtedly follow as nearly as possible such standards as the Pharmacopeia will adopt, if they adopt any for this class of medicines. You are *undoubtedly advised* of the fact that between the last two publications of the Pharmacopeia some thousands of articles came into use, which are not included in the last publication, and were not included in the previous one, and it is fair to assume that the increase has been quite as marked since the last publication, and to stop where the retail drug men have asked us to stop, with the American Pharmacopeia, would leave the door wide open to the deleterious medicines and nostrums that have come into use since its adoption.

I write you this fully in order that you may give me the benefit of your suggestions as to the provisions in the Senate bill not contained in the House bill. The majority of the committee is in favor of the additional restrictions contained in the Senate bill, and unless very good reason is shown for it will insist on it standing. The strongest opposition is made on behalf of the patent-medicine people speaking through the retail druggists.

I would strongly urge on you that you communicate with as many physicians in the United States and as many medical organizations in United States and as many medical organizations as possible to be reached, that they may thoroughly understand that if they will be kind enough to express their opinion to me in favor of the Senate bill reported as a substitute for the House bill, it will materially aid us in meeting the oposition to the bill.

You will find that the strongest opposition to the Senate bill is from patent-medicine people and retail druggists. I solicit your earnest co-operation in this matter. Of course, I need not assure you that I shall do everything in my power to secure the passage of the bill as reported by the Senate committee.

(Signed) W. B. Heyburn.

The Antiquity of Castor Oil.—According to the *Medical Age*, Professor Larit of France says that some of the seeds of the *castor oil plant found in Egyptian tombs at* Thebes could not be less than 3,000 years old, and were perfectly preserved, the oil which they contained being simply rancid. Larit has translated an ancient papyrus, which goes to show that the uses to which the ancient Egyptian put the oil were much the same as those of the present day.

Cocain in Postpartum Hemorrhage.—Dr. C. Fox of Caerphilly writes to the *British Med. Jour.* as follows: I was called suddenly to a case of postpartum hemorrhage. I could see at a glance the patient was in an exceedingly grave condition. Uterus on examination, flaccid; hemorrhage profuse, the countenance portraying approaching death. Having no ergotin, I bethought me of a solution of cocain hydrochlorate I happened to have in my bag. I immediately injected a quantity equal to 1½ grains, and in the course of two minutes at most the uterus had contracted, the hemorrhage had ceased, and the facial expression completely altered. The patient then spoke in her usual voice and said she felt "quite well." She made an uninterrupted recovery. I should be very glad to hear if any of your numerous readers ever tried cocain in a similar case. I have not heard of it being so used, though I have often inquired. To me the effect was marvelous.

What Makes a Physician.—The skill of a physician is in part similar to that of any other man of science. Primarily he should have a mind of detail and exact thinking. The method of exclusion, "It can not be anything else, so it must be typhoid," is the sign of vagueness, and has diminished with the progress of the laboratory spirit. The able diagnostician recognizes each disease, not by loose, obvious symptoms, but by a variety of exact details, often discoverable only on analysis, and peculiar to that disease. This exact mind for detail makes the physician on the side of diagnosis. When it comes to acting on his understanding, to removing a condition which he understands, other qualities become requisite. No profession in our day has made such progress as the medical, counting surgery as part of it; and its unexampled improvement is part of our progress in science, the field of thought in which the nineteenth century was most notable. In many professions there has been no progress at all, certainly not in law or in the pulpit.—*Collier's*.

The Recognition of Osteopaths.—Much as we may wish to ignore the existence of the osteopaths as a school of physicians, they are securing followers in such numbers and are demanding recognition from the legislative bodies with such positiveness that they have gained firm footing in spite of our protests. We have contented ourselves with passing resolutions in our medical societies while they have labored night and day with greatest earnestness. We have merely "referred the matter to our legislative committees," while they have made pilgrimages to state capitals and have bearded the legislators in their dens. In Arkansas, Oklahoma, Missouri, Michigan and Minnesota the osteopaths have been accorded state recognition and select their own examiners; in Alabama this was prevented only by the vote of the lieutenant governor (who chanced to be a doctor), after the bill had passed the House and had gained half the votes of the Senate. In Kentucky and Mississippi the osteopaths are putting up a bitter and determined fight, and stand a good chance of securing favorable laws in the next sessions of the legislatures. They are working day and night, summer and winter, week days and Sundays, while the medical profession of the various states pass resolutions or refer to committees and then sink back into their apathetic state. In Illinois, we are told, the osteopaths will demand recognition again in 1905. The systematic work is now on. Their opposing forces, the medical profession of the state, is doing little in preparation for the fray. Twice in the past have these disciples of the sage of Kirksville succeeded in passing bills through both houses of the Illinois legislature. Laws recognizing osteopaths in Illinois would be on our statutes to-day had the action of the medical profession of the state been depended on to check them. In the administration of the late Governor John R. Tanner one bill passed both houses and was promptly vetoed by the governor, though far more pressure was brought to bear on him to sign the bill by the osteopaths than to veto by the medical profession. The last osteopathic bill was killed only by the vigorous veto of Governor Richard Yates. The time may come when the state of Illinois will not have governors who are inclined to protect the medical profession so vigorously. A governor may come who will prefer to listen to the emphatic voices of hundreds of determined osteopaths rather than to the whispered protests of a handful of doctors. Then Illinois will pass favorable osteopathic bills. It is not the osteopath alone who is concerned in this matter. The establishment of a precedent of recognizing all of the mongrel cults, one of which is being born each month, will result in the establishment of a recognized medical fraternity which will be no credit to the state and which will be prejudicial to the interests of every reputable medical man in the state. It is not fair to expect that state authorities will close their ears to the pleas of thousands of voters who demand recognition of the osteopaths and the other cults when the medical profession manifests no interest in their own behalf. It is the duty of the legislators and of the governor to serve most of the people, and there can be no chosen few who will be given favoritism as a matter of course without even the form of asking.—*Chicago Clinic and Pure Water Journal.*

State Boards of Registration.

COMING EXAMINATIONS.

Arizona Board of Medical Examiners, Phoenix, April 4 Secretary, Wm. Duffield, M.D., Phoenix.

Utah State Board of Medical Examiners, Salt Lake City, April 4. Secretary, R. W. Fisher, M.D., Salt Lake City.

Board of Medical Examiners of Montana, Helena, April 5. Secretary, Wm. C. Riddell, M.D., Helena.

North Dakota State Board of Medical Examiners, Grand Forks, April 5. Secretary, H. M. Wheeler, M.D., Grand Forks.

Board of Medical Examiners of the State of California, City Hall, San Francisco, April 5. Secretary, Geo. G. Gere, San Francisco.

Idaho State Board of Medical Examiners, Boise, April 6. Secretary, R. L. Nourse, M.D., Hailey.

Minnesota State Board of Medical Examiners, State Capitol Building, St. Paul, April 5-7. Secretary, C. J. Ringnell, M.D., Minneapolis.

Tennessee State Board of Medical Examiners, Memphis, Nashville and Knoxville, April 6-7. Secretary T. J. Happel, M.D., Trenton.

Illinois State Board of Health, Chicago, April 6-8; April 25-27, and East St. Louis, May 4-6. Secretary, J. A. Egan, Springfield.

Rhode Island State Board of Health, State House, Providence, April 7-8. Secretary, Gardner T. Swarts, M.D., Providence.

State Medical Board of the Arkansas Medical Society, Little Rock, April 12. Secretary, J. P. Runyan, M.D., Little Rock.

Missouri State Board of Health, Kansas City, April 12-14. Secretary, W. F. Morrow, M.D., Kansas City.

West Virginia State Board of Health. Clarksburg, April 12-14. Secretary, Hugh A. Barbee, M.D., Point Pleasant.

Vermont State Board of Medical Censors, Y. M. C. A. Building, Rutland, April 13-14. Secretary, S. W. Hammond, M.D., Rutland.

Board of Medical Supervisors of the District of Columbia, Washington, April 14. Secretary, Wm. C. Woodward, M.D.

Board of Medical Examiners for the State of Texas, Austin, April 21-23. Secretary, M. M. Smith, M.D., Austin.

State Board of Medical Examiners of Iowa, April 14-15 at Keokuk, April 20-21 at Des Moines. Secretary, J. F. Kennedy, M.D, Des Moines.

Nebraska State Board of Health, Lincoln, April 21-23. Secretary, Geo. H. Brash, M.D., Beatrice.

New Mexico Report.—Dr. B. D. Black, Las Vegas, secretary of the New Mexico Board of Health, reports that at the partly oral and partly written examination held at Santa Fe, December 7, 1903, 70 questions were asked on 7 subjects, and a percentage of 65 was required. Half of the four applicants passed.

College.	Year Grad.	Per Cent.
PASSED.		
National Medical University, Chicago	(1902)	88 4/7
Saginaw Valley Medical College, Michigan	(1899)	79 4/7
FAILED.		
University of Colorado	(1902)	57 4/7
Denver Homeopathic Medical College	(1902)	56 5/7

Association News.

ATLANTIC CITY HOTELS.

A List of the Hotels and Prices—Ample Accommodation for All.

Atlantic City has about 1,200 hotels and boarding houses. Out of these the committee has selected the following houses, with their rates appended, which they can recommend. Comfortable board may be obtained in Atlantic City from $1 per day upward. The minimum rates apply to single rooms without baths, while the per capita rate per day for double rooms in most cases can be slightly reduced when two occupy the same room. For those wishing accommodations on the European plan, the Dunlop and Young's Hotel are exclusively European; *the Grand Atlantic, the Wiltshire, the Garden, the Islesworth, and the Rudolf, furnish accommodations on either European or American plans. The prices given below cover the American plan, except those referring to the Dunlop and Young's Hotel.*

HOTELS.	RATES PER DAY ON AMERICAN PLAN.		
Bouvier	$1.50	and up.	
Roxborough	1.50	to	$2.50
Revere	2.00	to	2.50
Altamont Craig Hall	2.00	to	3.00
Archdale	2.00	and up.	
Belmont	2.00	and up.	
Berkshire Inn	2.00	to	3.00
Chester Inn	2.00	to	2.50
Dunlop, $2.00 to $3.00, European exclusively.			
Young's Hotel, $2.00 to $3.00, European exclusively.			
New Hygeia	2.00	to	3.00
Albermarle	2.00	to	3.50
Arlington	2.00	to	3.50
Holmhurst	2.00	to	4.00
Champlain	2.00	to	4.00
Kenilworth Inn	2.00	to	4.00
Hotel Majestic	2.00	to	4.00
Hotel Boscobel	2.00	to	6.00
Chatham	2.50	to	3.00
Glaslyn,	2.50	to	3.00
Hotel New England	2.50	to	3.00
Ponce de Leon	2.50		
Wiltshire (also European)	2.50	and up.	
Hotel Imperial	2.50	to	3.50
Hotel Shoreham	2.50	to	3.50
Loraine	2.50	to	3.50
Rittenhouse	2.50	to	4.00
Grand Atlantic (also European)	2.50	to	5.00
Raleigh	3.00		
Hotel Gladstone	3.00	to	5.00
Hotel Savoy	3.00	to	5.00
Hotel Strand	3.00	to	5.00
Haddon Hall	3.00	to	7.00
Islesworth (also European)	3.00	to	8.00
Shelburne	3.00	to	8.00
Seaside	3.50	to	4.00
Rudolf (also European)	3.50	to	5.00
Garden	3.50	to	6.00
Hotel Dennis	3.50	to	6.00
Royal Palace	3.50	to	6.50
Hotel Windsor	3.50	to	7.00
Hotel Chelsea	4.00	and up.	
St. Charles	4.00	and up.	
Hotel Traymore,	4.00	to	8.00
Hotel Brighton	4.00	to	10.00
Marlborough House	4.00	to	10.00

In order to get good accommodations engagements for rooms should be made without delay. The committee will be glad to furnish any information desired, and will be pleased to engage quarters at the various hotels, or physicians may write to the hotel direct.

WM. EDGAR DARNALL,
Chairman Hotel Committee.

The Public Service.

Army Changes.

Memorandum of changes of station and duties of medical officers, U. S. Army, week ending March 19, 1904:

Raymond, Thos. U., surgeon, on being relieved from duty at Jefferson Barracks, Mo., by Major Wm. B. Banister, surgeon, will proceed to St. Louis for special duty at the Louisiana Purchase Exposition, with a view to exercising supervision over the sanitary conditions on the grounds.

De Loffre, Samuel M., asst.-surgeon, granted fourteen days' leave April 1, with permission to apply for seven days' extension.

Gosman, Geo. H. R., asst.-surgeon, relieved from duty at Fort Duchesne, Utah, and ordered to Camp Geo. H. Thomas, Ga., for duty.

Siler, Jos. F., asst.-surgeon, granted fourteen days' leave.

Navy Changes.

Changes in the medical corps of the Navy, week of March 26:

Green, E. H., medical inspector, detached from the *Kentucky* and ordered to the *New Orleans*.

Fitzsimons, P., medical director, to Navy Yard, Washington, D. C.

Bishop, L. W., asst.-surgeon, detached from the *Annapolis* and ordered to the Naval Hospital, Mare Island, Cal., for treatment.

Munson, F. M., asst.-surgeon, detached from the *Frolic* and ordered to the Naval Station, Pollok, P. I.

Traynor, J. P., asst.-surgeon, detached from the Naval Station, Pollok, P. I., and ordered to the *Frolic*.

McClanahan, R. K., asst.-surgeon, ordered home and granted sick leave for three months.

Ledbetter, R. E., asst.-surgeon, detached from the *Newark* and ordered home to wait orders.

Pryor, J. C., P. A. surgeon, detached from the *Bancroft* and ordered home to wait orders.

Plummer, R. W., P. A. surgeon, from the *Maine* to the *Bancroft*.

McDonnold, P. E, asst.-surgeon, detached from the *Olympia* and ordered home to wait orders.

The following assistant surgeons are detached from the U. S. Naval Museum of Hygiene and Medical School, Washington, D. C., and ordered to the following positions, respectively:

Abeken, F. G., to Training Station, San Francisco.
Smith, W. B., to the *Olympia*.
Kohlhase, O., to the *New York*.
Randall, J. A., to the *Maine*.
Rennie, W. H., Hoen, W. S., Verner, W. W., Grieve, C. C, DeBruler, J. P., Dean, F. W. S., Dykes, J. R., and Geiger, A. J., to the Asiatic Station, via the *Solace*.
Scott, S. L., to the *Massachusetts*.
Dorsey, B. H., to the *Illinois*.
McLean, A. D., to the *Alabama*.
Manchester, J. D., to the *Columbia*.
Rider, C. E., to the *Missouri*.
Pugh, Jr., W. S., to the *Prairie*.
Pease, T. N., to the *Hartford*.
Reeves, I. S. K., to the *Minneapolis*.
Sutton, R. L., to the Bureau of Medicine and Surgery, Navy Department.
Ely, C. F., Dessez, P. T., to the Naval Academy, Annapolis
Woodward, J. S., to Indian Head.
Riggs, R. E., to the *Newark*.
Rossiter, P. S, to Baltimore Recruiting Station.

Marine-Hospital Service.

Official list of the changes of station and duties of commissioned and non-commissioned officers of the Public Health and Marine-Hospital Service, for the seven days ended March 24, 1904:

Carter, H. R., surgeon, to report at Bureau for special temporary duty.

Peckham, C. T., surgeon, and Smith, A. C., P. A. surgeon, detailed for duty on Revenue-Cutter Service retiring board at New York.

Rosenau, M. J., P. A. surgeon, to proceed to Boston, Albany and New York, for special temporary duty.

McMullen, John, P. A. surgeon, Bureau order of Feb. 20, 1904, directing him to report to chief quarantine officer of Hawaii for duty, revoked.

Foster, M. H., P. A. surgeon, granted leave of absence for ten days from March 30.

Lumsden, L. L., P. A. surgeon, relieved from duty at New Orleans and directed to proceed to Vera Cruz, Mexico, for duty in office of the United States Consul.

King, W. W., asst.-surgeon, granted leave of absence for six days from March 18.

Goldberger, Joseph, asst.-surgeon, relieved from duty in Hygienic Laboratory and directed to proceed to Tampico, Mexico, for duty in office of the United States Consul.

Roberts, Norman, asst.-surgeon, relieved from duty at San Diego, Cal., and directed to proceed to New Orleans, and report to medical officer in command for duty and assignment to quarters.

Salmon, T. W., asst.-surgeon, relieved from duty at Philadelphia and directed to proceed to New York (Stapleton) and report to medical officer in command for duty and assignment to quarters.

Bakes, E. C., A. A. surgeon, granted leave of absence for three days from March 19, 1904, under Paragraph 191 of the Regulations.

Mackall, B. McV., A. A. surgeon, granted leave of absence for fifteen days from March 31.

Tidd, R. M., A. A. surgeon, granted leave of absence for fourteen days from April 1.

BOARD CONVENED.

Board convened at Washington, D. C., March 25, 1904, for the physical examination of an officer of the Revenue-Cutter Service. Detail for the board: Asst.-Surgeon-General L. L. Williams, chairman; Asst.-Surgeon-General W. J. Pettus, recorder.

Health Reports.

The following cases of smallpox, yellow fever, cholera and plague have been reported to the Surgeon General, Public Health and Marine-Hospital Service, during the week ended March 25, 1904:

SMALLPOX—UNITED STATES.

California: San Francisco, March 6-13, 4 cases, 4 deaths.
Delaware: Wilmington, March 12-19, 1 death.
District of Columbia: Washington, March 12-19, 1 case.
Florida: Jacksonville, March 12-19, 2 cases.
Illinois: March 12-19, Chicago, 5 cases; Danville, 1 case; Galesburg, 3 cases.
Kentucky: Covington, March 12-19, 1 case.
Louisiana: New Orleans, March 5-19, 3 cases, 2 imported.
Maine: Bradley, March 18, 2 cases; Madawaska region, March 12-19, 7 cases.
Maryland: Baltimore, March 12-19, 1 case.
Massachusetts: March 12-19, Fall River, 1 case; Lowell, 1 case.
Michigan: March 12-19, Detroit, 1 case; Grand Rapids, 1 case.
Missouri: St. Louis, March 12-19, 6 cases.
New Jersey: March 12-19, Camden, 6 cases, 1 death; Trenton, 1 case.
New York: March 12-19, Buffalo, 1 case; New York, 1 death; Niagara Falls, 4 cases.
Ohio: Cleveland, March 11-18, 3 cases, 1 death; Dayton, March 12-19, 8 cases, 1 death; Hamilton, Jan. 30-Feb. 6, 1 case.
Pennsylvania: March 12-19, Allentown, 3 cases; Altoona, 1 death; Philadelphia, 30 cases, 7 deaths; Pittsburg, 1 case, 1 death; Williamsport. 1 case; Carbondale, March 14-21, 2 cases.
Tennessee: March 12-19, Memphis, 21 cases; Nashville, 13 cases.
Wisconsin: Milwaukee, March 12-19, 6 cases.

SMALLPOX—FOREIGN.

Austria: Feb. 27-March 5, Prague, 4 cases; Trieste, 1 case.
Belgium: Antwerp, Feb. 27-March 5, 7 cases, 3 deaths; Brussels, Feb. 20-March 5, 2 deaths.
Brazil: Bahia, Feb. 13-20, 1 death; Pernambuco, Feb. 1-15, 17 deaths; Rio de Janeiro, Feb. 7-14, 128 cases, 67 deaths.
China: Feb. 3-10, Shanghai, 16 cases, Tientsin, reported.
France: Lyons, Feb. 20-27, 1 death.
Great Britain: Feb. 27-March 5, Edinburgh, 6 cases, 2 deaths; London, 13 cases; Manchester, 1 case; Nottingham, 14 cases, 1 death; South Shields, 1 case; Glasgow, March 4-11, 19 cases, 1 death: Sheffield, Feb. 20-27, 4 cases.
India: Bombay, Feb. 16-23, 20 deaths; Karachi, Feb. 14-21, 4 cases, 2 deaths.
Java: Batavia, Feb. 6-13, 19 cases, 9 deaths.
Mexico: City of Mexico, Feb. 28-March 6, 9 cases, 5 deaths; Vera Cruz, March 5-12, 1 case, 1 death.
Netherlands: Amsterdam, March 5-12, 1 case, 1 death.
Russia: Moscow, Feb. 17-24, 13 cases, 1 death; Odessa, Feb. 27-March 5, 1 case; Warsaw, Feb. 28 March 6, 11 deaths.
Spain: Barcelona, March 1-10, 9 deaths; Santander, Feb. 29-March 7, 3 cases.
Turkey: Constantinople, Feb. 28-March 6, 5 deaths.

SMALLPOX—INSULAR.

Philippine Islands: Antimonan, Feb. 5-12, present; Cebu, Jan. 1-31, 5 cases, 1 death.

YELLOW FEVER.

Brazil: Rio de Janeiro, Feb. 7-28, 15 cases, 4 deaths.
Mexico: March 6-12, Merida, 1 case, 2 deaths; Tehuantepec, 4 cases; Vera Cruz, March 5-12, 1 death.

CHOLERA—INSULAR.

Philippine Islands: Jan. 30-Feb. 6, Manila, 2 cases, 2 deaths; Provinces, 53 cases, 35 deaths.

CHOLERA—FOREIGN.

Turkey in Asia: Basra, Feb. 6-12, 6 cases, 3 deaths.

PLAGUE—INSULAR.

Philippine Islands: Manila, Jan. 30-Feb. 6, 3 cases, 2 deaths.

PLAGUE—FOREIGN.

Brazil: Para, Feb. 15, 2 cases; Rio de Janeiro, Feb. 7-28, 13 cases, 6 deaths.
India: Bombay, Feb. 16-23, 718 deaths; Karachi, Feb. 14-21, 97 cases, 74 deaths.

Medical Organization.

Arkansas.

Searcy County Medical Society.—On March 2, physicians of the county assembled at Marshall and organized a county society, with a charter membership of 7, and the following officers: Dr. William F. Rogers, St. Joe, president; Dr. Perry G. Hays, Blanco, vice-president; Dr. Samuel G. Daniel, Marshall, secretary; Dr. J. Oliver Cotton, Leslie, treasurer, and Dr. James A. Henley, St. Joe, librarian.

Louisiana.

Bienville Parish Medical Society.—Physicians of the parish met at Bienville, March 17, and organized a medical society with the following officers: Dr. Francis M. Thornhill, Arcadia, president; Dr. Andrew J. Pennington, Gibsland, vice-president; and Dr. Oliver O. Hamner, Bienville, secretary and treasurer.

Missouri.

Maries County Medical Society.—This society has been organized on the standard plan with the following officers: Dr. Otto C. Fritts, Belle, president; Dr. William E. Johnson, Lois, and Dr. Otto N. Schudde, Vienna, secretary and treasurer.

Ohio.

Trumbull County Medical Society.—Dr. Thomas C. Martin, Cleveland, met with physicians of the county at Warren, March 19, and after setting forth the benefits to be derived from standard organization, assisted in the reorganization of the society on that plan. The officers of the temporary organization are: Dr. Frederick K. Smith, Warren, president; Dr. Curtis C. Williams, Niles, secretary, and Drs. Smith, Williams and Delbert E. Hoover, Warren, committee on constitution, by-laws and permanent organization.

Texas.

Palo Pinto County Medical Association.—At a meeting of physicians of the county held at Mineral Wells, March 14, organization was effected on the standard plan, and the following officers were elected: Dr. John M. Luttrell, Mineral Wells, president; Dr. Robert H. Smith, Palo Pinto, vice-president; Dr. Robert L. Yeager, Mineral Wells, secretary and treasurer; Dr. Horatio B. Withers, Mineral Wells, censor, and Dr. Benjamin R. Beeler, Mineral Wells, delegate to the state association.

Wisconsin.

Inter-County (Buffalo and Pepin) Medical Society.—A meeting of physicians of the two counties was held in Durand, March 17, at which a medical society was organized with seven members and the following officers: Dr. Milton B. Axtell, Pepin, president; Dr. Jacob S. Tenney, Alma, vice-president; Dr. Philip B. Amundson, Mondovi, secretary, and Dr. Edmund C. Jacobs, Durand, treasurer.

Society Proceedings.

COMING MEETINGS.

Medical Association of the District of Columbia, Washington, April 5.
Tennessee State Medical Association, Chattanooga, April 12.
South Carolina Medical Association, Darlington, April 13.
Medical Association of the State of Alabama, Mobile, April 19.
Medical Society of the State of California, Paso Robles, April 19-21.
Florida Medical Association, Live Oak, April 20.
Medical Association of Georgia, Macon, April 20.
Mississippi State Medical Association, Jackson, April 20.
Texas State Medical Association, Austin, April 26.
Medical and Chirurgical Faculty of Maryland, Baltimore, April 26-28.
Arizona Medical Association, Tucson, April 27-28.

AMERICAN SOCIETY OF TROPICAL MEDICINE.

First Annual Meeting, held at the College of Physicians, Philadelphia, March 21, 1904.

Leprosy and Dysentery Specimens.

Dr. W. M. L. Coplin presented specimens of hands showing the lesions of anesthetic leprosy, one of which showed a nerve with the leprous nodules. He also exhibited specimens showing the lesions of amebic and bacillary dysentery. In one of the cases the *Ameba coli* was demonstrated during life and the Shiga bacillus was obtained from the intestine postmortem. He also showed specimens of hepatic abscesses following both amebic dysentery and bacillary dysentery. He also showed a duodenum with the *Uncinaria duodenale* in situ.

Dr. Judson Daland said that the Japanese physicians, who see a number of cases of uncinariasis, believe that the cases of pernicious anemia that seem to arise from infection with that parasite are due to the hemorrhages from the intestinal wall following the death and removal of the worm, which attaches itself intimately to the mucosa.

Leishman-Donovan Bodies.

Dr. Joseph McFarland, through the kindness of Sir Patrick Manson, exhibited some slides showing the Leishman-Donovan parasites. These were first described by Maj. W. B. Leishman in May, 1903, who found them in the blood of patients suffering from dum-dum fever, which was formerly supposed to be of a malarial nature, presented, when admitted to Netley, an extreme degree of cachexia, an irregular, remittent type of fever, grave anemia, progressive muscular atrophy and great enlargement of the spleen. Digestive and bowel disturbances were frequent. In none of the cases admitted to Netley were malarial parasites found in the blood, nor was there any record of these organisms having been found at an earlier stage of the disease. On making smear preparations from the splenic pulp from one of the cases, Leishman found large numbers of small, round or oval bodies unlike anything previously seen or described. On staining with Romanowsky's method they were found to possess a quantity of chromatin of a definite and regular shape, which differentiated them from blood plates or possible nuclear detritus. The chromatin appeared in the form of a circular mass or ring with a smaller chromatin mass in the form of a short rod applied at a tangent or perpendicularly to it. Later, Donovan reported finding similar bodies in smears taken postmortem from the enlarged spleens of natives who had died of what was supposed to be chronic malaria. Still later he found similar bodies in the smears made after a splenic puncture during life from a boy aged 12 years, who had no malarial parasites in his peripheral blood. The bodies described by Donovan were afterward examined by Ross, who determined that they were in every way identical with those discovered by Leishman. Up to Nov. 5, 1903, Donovan found the bodies in 16 cases after puncture of the spleen and the liver during life. In January, 1904, Manson and Low tapped the enlarged spleen of a man from Darjeeling and found a large number of the parasites. The bodies have not been found in the circulating blood nor have they been found in the feces or the urine of the host. An attempt to cultivate the parasites on blood agar failed.

Hymenolepis Nana.

Dr. Allen J. Smith, in his own name and that of Dr. L. E. Magnenat of Amarillo, Texas, exhibited specimens of the adult *Hymenolepis nana* and its ova. This worm was first encountered by Bilharz as a human parasite in Cairo, in 1851; and since then it has been mainly found in the same general locality, but especially in Italy. Instances from central Europe, from France, England, South America and elsewhere are also on record. In the United States, Spooner announced a case in 1872, from Philadelphia, and his specimens are deposited in the collection of the College of Physicians. The case has, however, been placed in doubt by Leuckhart and others, and Dr. Smith knows of no effort to verify or positively contradict the question which has arisen. This single case of Spooner being omitted as possibly being *Tenia flavopunctata*, the first instance of the parasite in the United States was found in Galveston, Texas, in 1892, by Moore and Elliott in a railway laborer applying for relief of a troublesome and persistent diarrhea in the St. Mary's Infirmary. The specimens recovered from the stools were offered the writer for identification. Following this case, Stiles, in his systematic examination of intestinal dejecta in Washington and some of the southern states, found 4 instances of the same parasite; and following his efforts the widespread study of stools for parasites led, before the announcement of the material here presented, to the recognition of perhaps a dozen more cases in this country. So far as Dr. Smith now is aware, the cases from which this material was obtained, 3 children of one family in Amarillo, Texas, are Nos. 17, 18 and 19 in the American literature. The cases were discovered in the spring of 1903 by Dr. L. E. Magnenat, a practitioner of medicine at Amarillo, who furnished the specimens that Dr. Smith showed. All the patients were young, badly nourished and neurotic children, and the discovery of the ova in the stools followed the search for the ova of uncinaria, which Dr. Magnenat suspected because of the anemia and general undernutrition. The energetic use of anthelmintics was followed by the recovery from the stools of between 500 and 1,000 specimens. At the time of last information the persistence of ova in the stools indicates that the parasites have not been entirely dislodged." The worm has been regarded by Grassi and others as identical with

Hymenolepis murina of rats, although others have denied this point (Moriez). Grassi has shown that it is possible to infect young white rats (from 1 to 4 months old) directly by feeding ripe links of *Hymenolepis murina* without an intermediate host (although probably ordinarily an intermediate host of some arthropod, as fleas or lice, harbor the cysticercoid of the worm). Dr. Smith has endeavored, by feeding human stools containing eggs of *H. nana* over a period of 8 weeks, to infect white rats of selected age, but has systematically failed. Thus far he has not been in a position to infect by means of an intermediate host. The specimens when fully developed are usually 10 to 15 mm. long and ½ to ⅞ mm. wide at the widest part. The head is subspherical, a little over ¼ mm. in diameter, provided with a retractile rostellum, armed with a single row of 24 to 30 hooklets; and with 4 rounded suckers, 90 to 105 microns in diameter. The neck is long, gradually merging with the head. The first segments are very short and not well defined, the succeeding ones gradually growing broader and longer until, when complete, they measure 0.14 to 0.30 mm. in length and 0.4 to 0.8 or 0.9 mm. in width; the last ones a little narrower and longer. The eggs are round or slightly oval, double walled and measure from 40 to 45 microns to 50 or 55 microns. The contained embryo measures from 20 to 24 microns. Each embryo is provided with 6 hooklets. In the space between the inner and the outer wall are seen several small thread-like bodies of unknown importance. There is a small papilla at each end of the embryophore.

Officers Elected.

The following officers were elected for the ensuing year: President, Dr. Thomas H. Fenton; vice-presidents, Drs. J. J. Kinyoun and James M. Anders; treasurer, Dr. Alfred Hand; secretary, Dr. Joseph McFarland; assistant secretary, Dr. John M. Swan; councilors, Drs. Roland G. Curtin, Judson Daland, John V. Shoemaker, Allen J. Smith and W. M. L. Coplin.

BUFFALO ACADEMY OF MEDICINE.

Regular Meeting of the Section on Pathology, held March 15, 1904.

The Serum Test for Blood.

Dr. Herbert U. Williams demonstrated the serum test for blood as a means of detecting human blood in medicolegal cases. The biologic or precipitin reaction was discovered incidental to experimental work in animals on artificial immunity in infectious diseases. When an animal receives injections of foreign material into the blood, it develops a condition comparable to that of immunity. The blood serum of such an animal requires three properties: (1) That of destroying or disintegrating cells as in immunizing animals for bacteria; (2) the serum develops the property of agglutinating the same cell as the agglutinating reaction in typhoid fever (Widal serum reaction) or the agglutination test for *Bacillus pyocyaneus*, streptococci, pneumococci, etc.; (3) when blood is injected into an animal it can agglutinate the serum of animals of the same species and acquire the property of inducing a precipitate. So that if the egg albumin of a hen is injected into a rabbit the serum of the rabbit will form a precipitate with the egg albumin of the animal from which the egg is derived or its serum.

This principle has been applied to the blood of various animals, including that of man. Uhlenhuth first showed it, then Nuttall also. Nuttall examined the blood of a large number of animals, including man, and got the reaction, finding it negative in only the orang outang, chimpanzee and gorilla. A student of Nuttall also applied the blood test on blood stains obtained from Scotland Yard detective office, such as on knives, leather, etc., and though the stains were of all ages he could make a positive test for human blood from the oldest stains.

The method is briefly as follows: Human blood is obtained from any source, placenta, fetus, etc., and 30 to 60 c.c. are injected into the rabbit at intervals of 3 days to a week, over a period of two to three months, injecting 5 to 10 c.c. at a time. One to two weeks after the last injection the blood of the rabbit acquires its greatest potency. The rabbit is then bled from the carotid artery into a clean flask and the serum separated.

The blood clot or suspected blood stain is dissolved in distilled water and then mixed with double normal salt solution. This dilution of distilled water and salt solution and blood should be in the proportion of 1-50 to 1-100. To this solution the serum of the blood from the rabbit is added in a test tube, and if the test is positive a precipitate is formed.

Dr. Williams referred to the detection of human blood by measuring the red corpuscles. The diameter of the red corpuscle of man is 1/3200 of an inch, and of the dog and the rabbit nearly the same size, about 1/4000 of an inch. This method may be at fault, for it is known that the red blood corpuscles vary greatly in size in anemias, especially pernicious anemia.

Dr. Williams used the precipitin test. He used serum of rabbits inoculated with blood from a fetus and from a placenta and with pleuritic fluid, and in the fourth rabbit beef blood was used. The control experiments were made with the blood of pig, rabbit, horse, guinea-pig, rat, cat and sheep. The precipitin test was obtained with human and beef blood best; it also was obtained from the horse's blood and from that of a dog.

Dr. Williams states that the procedure is by no means simple, as it requires two to three months to get the rabbit's serum fortified so that it can be used. This makes it unpractical in medicolegal cases in which the time given for such an investigation is often short. He was very careful in his technic, but from the behavior of the reaction in his experiments thus far he does not believe this serum test for human blood is safe, for it is inconstant.

Case Reports.

Dr. DeLancey Rochester showed an aneurism of the arch of the aorta, with calcareous deposit on the aortic valve. It was from a hard-working farmer between 50 and 60 years of age. There was no history of any illness which might result in an aneurism. There were few subjective symptoms of aneurism and no pressure symptoms. The manner of death was unknown.

Dr. Albert E. Woehnert demonstrated slides from a case of pernicious anemia with blood crisis.

Dr. Charles A. Bentz demonstrated a male and a female *Anchylostomum duodenale* and the eggs.

Dr. William Mosher spoke of his experiences with the purinometer. It is an instrument to detect the amount of purin bodies excreted in the urine. The amount excreted is dependent on the amount of nitrogenous material ingested and also on the metabolism of the body.

Dr. Carrol Roberts reported a case of aortic stenosis in a young woman suffering from tertiary syphilis.

RHODE ISLAND MEDICAL SOCIETY.

Business Meeting, held in Providence, March 3, 1904.

The President, Dr. William R. White, in the Chair.

The secretary, Dr. Stephen A. Welch, reported the membership to be 303, of whom 275 were active members.

The treasurer, Dr. George S. Mathews, reported a cash balance for the year of $621.62.

Officers Elected.

The following were elected officers for the ensuing year: President, Dr. William R. White, Providence; vice-presidents, Drs. Christopher F. Barker, Newport, and Charles V. Chapin, Providence; recording secretary, Dr. Stephen A. Welch, Providence; corresponding secretary, Dr. Herbert Terry, Providence; treasurer, Dr. George S. Mathews, Providence; delegate to the House of Delegates of the American Medical Association, Dr. John Champlin, Westerly; alternate, Dr. F. T. Rogers.

Constitution Revised.

The society unanimously voted to accept the revision of the constitution and by-laws which was drawn on the lines proposed by the American Medical Association. This revision has been in charge of a committee consisting of Drs. John

Champlin, F. T. Rogers, William R. White and George F. Keene.

Prize Essay Contest.

President White announced a prize of $500, offered by a member of the society for an essay by any member of the medical profession on the subject, "Postoperative Phlebitis." Every competitor for this prize is expected to forward to the president, Dr. William R. White, 7 Greene Street, Providence, R. I., on or before Feb. 1, 1905, a copy of his dissertation, legibly written, preferably in type and suitably bound, so as to be easily handled. The writer's name and address must be enclosed in a sealed envelope bearing on the outside a motto corresponding with one on the accompanying dissertation. Any clew given by the dissertation or any action on the part of the author which may reveal his name before the award of the prize will disqualify him. In case no dissertation is considered sufficiently meritorious, no award will be made. A high value will be placed on original work. Letters accompanying the unsuccessful dissertations will be destroyed unopened and the dissertation may be procured by their respective authors if application be made within three months after the announcement of the award.

Papers Read.

Dr. Herbert Terry read a paper on "Tumors of the Bladder," Dr. W. Louis Chapman one on "Postoperative Pneumonia with Experiments on Its Pathogenesy," and Dr. William F. Gleason one on the "Care of the Feeble-Minded."

Care of Feeble-Minded Children.

The society then passed the following resolution:

Whereas, It is the sense of this meeting that the care and training of the feeble minded are the concern of the state and should be pursued as an integral part of our system of public education and not as a charity; and

Whereas, It is sound public policy as well as to the advantage of the afflicted that such education for Rhode Island children should be provided by an institution in this state; therefore, be it

Resolved, That the legislative committee of this society be requested to present to the consideration of the honorable general assembly an adequate plan for putting into effect the education of feeble-minded children through the establishment by the state of a suitable home and school.

Therapeutics.

[Our readers are invited to send favorite prescriptions or outlines of treatment, such as have been tried and found useful, for publication in these columns. The writer's name must be attached, but it will be published or omitted as he may prefer. It is the aim of this department to aid the general practitioner by giving practical prescriptions and, in brief, methods of treatment for the diseases seen especially in every-day practice. Proper inquiries concerning general formulae and outlines of treatment are answered in these columns without allusion to inquirer.]

Laxative in Pregnant Women.

The following combination is recommended by Lutaud in *Jour. de Med. Interne*, as a laxative to relieve the constipation of pregnant women:

℞.	Olei ricini	℥i	30
	Syr. rhei	ʒvi	24
	Alcoholis	℥ss	15
	Ol. menth. pip.	ʒss	2

M. Sig.: At one dose.

Gastric Ulcer.

In the treatment of gastric ulcer, Hayden, in *Ther. Gaz.*, recommends that the patient be put to bed and given only a small amount of food, consisting of a quarter of a glass of milk every two hours, this to constitute the diet for four days.

Enemas are recommended three times a day, consisting of the following:

℞.	Dry peptones	℥i	30
	Yolk of two eggs		
	Aquæ (warm)	℥vii	200

M. Sig.: To be introduced into the bowel after a cleansing enema.

The quantity of milk may be increased to half a glass every two hours; on the eighth day to three-quarters of a glass, and on the twelfth day to a full glass, but not to exceed three quarts in the twenty-four hours. After twenty days, if vomiting does not take place and the milk is digested well, the quantity may be diminished and solid food given progressively as follows: Milk soup three times a day; soft boiled eggs, broth, broth with the yellow of an egg, meat juice, custard; white meat, soft and boiled; mashed vegetables and last of all bread. He recommends the following to combat the gastric irritation and thus allay the tendency to vomit:

℞.	Bismuthi subnit.	ʒv	20
	Aquæ	℥iii	90

M. Sig.: Shake the bottle and take the entire amount at one dose.

This may be repeated as necessary and warm fomentations applied to the epigastrium. This line of treatment may be continued for two weeks, when the following combination may be substituted:

℞.	Sodii sulph.		
	Sodii bicarb., āā	xlv	3
	Sodii chloridi	gr. xv	1
	Aquæ q. s. ad	Oii	1000

M. Sig.: Warm the solution and drink a glassful daily in divided doses.

Hemorrhoids.

The following outline of treatment is recommended by Preissmann in *Ther. Gaz.*, in the treatment of hemorrhoids:

℞.	Pot. iodidi	gr. xxx	2	
	Iodi (pure)	gr. iii		20
	Glycerini	℥i	30	

M. Sig.: Apply locally once an hour on absorbent cotton.

Or a stronger solution as follows:

℞.	Pot. iodidi	gr. lxxv	5
	Iodi (pure)	gr. xxx	2
	Glycerini	℥i	30

M. Sig.: Apply locally on cotton every two hours after taking a tepid sitz bath.

Iodin in Pulmonary Tuberculosis.

Delearde, in *Bul. Gen. de Ther.*, recommends the following combination containing iodin in the treatment of pulmonary tuberculosis:

℞.	*Tinct. iodi*	ʒiiss	10
	Pot. iodidi	gr. xv	1
	Glycerini	ʒv	20
	Syr. aurantii corticis	ʒvi	25
	Aquæ q. s. ad	℥xvi	500

M. Sig.: One dessertspoonful twice a day before meals well diluted in water.

This line of treatment seems to improve the digestion, acts as a tonic, and decreases the tendency to vomit.

Diabetes.

In the treatment of diabetes W. H. Thomson, in *Amer. Med.*, states that he rarely employs opium, codein or other opium derivatives, as they only relieve the symptoms for a time and do not change the nutrition of the tissues. The author recommends, as being of more permanent benefit, the use of cod-liver oil, and the younger the patient the freer the use of this remedy. So long as the stomach does not become deranged too much cod-liver oil can not be taken. It both diminishes the sugar and the excess of urea. Obesity and sedentary habits are contraindications to its use. Next to cod-liver oil the author mentions iron as a remedial agent in diabetes; acting as an oxygen carrier, it should be given in as large doses as possible along with plenty of fresh air. The following well-known combination is recommended in order to avoid constipation:

℞.	Ferri sulph.	ʒss	2	
	Pulv. senna			
	Pulv. *jalapæ*			
	Potass. tartratis			
	Pulv. zingiberis, āā	gr. ii		75
	Ext. gentianæ q. s.			

M. *Ft. pil. No. xxx. Sig.: One to three pills three times daily.*

Arsenic is also recommended, given in the form of arsenous acid or Fowler's solution.

For a speedy reduction in the amount of sugar the following combination is recommended:

℞. Antipyrini			
Sodii benzoatis, ãã	gr. xv	1	

M. Sig.: To be taken at one dose and repeated four times daily.

After a time the following containing aspirin is substituted:

℞. Aspirin	gr. xv	1	
Bismuthi salicylatis	gr. x		65

M. Sig.: At one dose three or four times a day.

In subacute cases the following outline of treatment is recommended:

℞. Benzosol	gr. xlviii	3	20
Sodii benzoatis	ʒiv	15	
Acidi arsenosi	gr. i		06
Sodii salicylatis	ʒiii	12	

M. Ft. cap. No. xlviii. Sig.: Two capsules one hour after meals and at bedtime; or:

℞. Sodii sulphocarbol.	ʒii	8	
Salicini	ʒi	4	
Phenacetini	ʒii	8	
Ammon. benzoatis	ʒiv	15	

M. Ft. capsulæ No. xlviii. Sig.: Two capsules one-half hour after meals.

If there be much insomnia the following combination is recommended, taken at bedtime:

℞. Strontii bromidi	gr. xx	1	30
Antipyrini	gr. xv	1	

M. Ft. chart. No. i. Sig.: To be taken at bedtime.

A dose of blue mass is administered once a week to patients after middle life. The following powder is of service in some cases to relieve the constipation:

℞. Sodii bicarb.	ʒiss	6	
Sodii sulph.			
Mag. sulph., ãã	gr. xxx	2	
Sodii salicylatis	gr. x		65

M. Ft. chart. No. i. Sig.: To be taken at bedtime.

Arsenic remains as one of the important remedies in diabetes, diminishing, as it does, the formation of glycogen. It has been recommended by Martindale combined as follows to form the bromid:

℞. Potass. carb.			
Acidi arsenosi, ãã	gr. xv	1	
Aquæ destil.	℥iiss	75	
M. Boil until dissolved. When cold add:			
Bromi	ʒss	2	
Aquæ destil. q. s. ad	℥iii	90	

Sig.: From one to three or five drops once or twice daily.

In the symptomatic treatment of diabetes, Stewart, in the "Text-Book of Applied Ther.," recommends a weak alkaline water such as Vichy or Apollinaris to relieve the thirst, which is usually present proportionate to the amount of sugar present. To allay the craving for food there is no better agent than opium or a little alcoholic stimulant. For constipation he recommends the following pill:

℞. Ext. cascaræ			
Ext. aloes, ãã	gr. ii		12

M. Ft. pil. No. i. Sig.: To be taken at night and followed the next morning by a saline laxative.

Lecithin.

In an abstract in *Med. Rev. of Reviews* Henri Labbé discusses the physiologic and therapeutic properties of lecithin which is extracted from the brain and from eggs. It produces favorable changes in metabolism, weight, appetite, urinary changes, osteogenesis, nerve elements and the blood. Therapeutically it has been found of great value in the treatment of rachitis when substituted for the phosphates; in neurasthenia and anemia it increases the appetite, restores strength and improves the general condition. In phosphaturia it can be substituted for the phosphates. It has also been found beneficial in the treatment of diabetes; in cachexias and in convalescence it restores strength, increases the flow of urine and in some cases it acts on the heart when digitalis fails. It has also been recommended in lymphatism of children and in tuberculosis. D. R. Brower has derived good results from the use of lecithin in neurasthenia in connection with or alternating with the glycerophosphates. He prescribes it in the form of the granular lecithin, giving 5 grains (.30) three times a day, or the glycerol of lecithin one dram (4.00) at a dose after meals. In rachitic cases it may be combined as follows:

℞. Lecithin (dissolved in chloroform)	gr. xxx	2	
Olei morrhuæ	℥iv	120	

M. Sig.: One dessertspoonful to a tablespoonful after each meal.

It has also been recommended in the form of an emulsion as follows:

℞. Lecithin	gr. vi-xii		25-.50
Pulv. acaciæ	℥ss	15	
Olei amygdalæ	gtt. xv	1	
Aquæ laurocerasi q. s. ad	℥iv	120	

M. Sig.: One tablespoonful three times a day after each meal.

Medicolegal.

Valid Release in Personal Injury Case.—The Supreme Court of Nebraska holds, in the case of Osborne vs. Missouri Pacific Railway Company, that a party who, having the capacity and opportunity to read a release of claims for damages for personal injuries signed by himself, and not being prevented by fraud practiced on him from so reading it, failed to do so, and relied on what the other party said about it, is prevented by his own negligence from asserting that the release is not legal and binding on him according to its terms.

Not Traveling Physician Under Statute.—The Court of Criminal Appeals of Texas reverses in Adams vs. State a conviction of the former of pursuing the occupation of a medical specialist traveling from place to place, without having paid the occupation tax prescribed by article 5049 of Sayles' Revised Civil Statutes of 1897. It says that the undisputed facts showed that he came to G. about May 1, 1903, and established and equipped an office; that he maintained an office at E., and at J. and B.; that he divided his time between these offices, and kept an assistant at each place, and treated patients at the places at stated intervals; that prior to coming to G. he had his headquarters and lived at M., and had practiced there and at J., and had lived at M. 18 months; that on leaving M. he moved with his wife and children to G., where they lived at a hotel up to within three weeks of the time of filing the information, when his wife and children went on a visit to relatives at Q. He received his mail at G., which was his headquarters, and practiced nowhere except at his offices before mentioned. In the court's opinion these facts did not constitute him a traveling physician as contemplated by said article 5049.

Expert Witnesses and Special Compensation.—The Supreme Court of Illinois says, in Chicago City Railway Co. vs. Handy, a personal injury case brought by the latter party, that it is competent to show that a witness has charged or expects to receive greater compensation than the fees allowed by the statute, and that he is in the employ of one of the litigants regularly or frequently as an expert witness, or to prove facts and circumstances which would naturally create a bias in the mind of the witness for or against the cause of either of the litigants. Expert witnesses are often found to be necessary, and while there is no good reason that any one who has the requisite special knowledge should not give testimony as an expert witness and receive greater compensation therefor than the fee allowed a witness by the statute, if the party calling him voluntarily consents to pay such greater compensation, still the fact that he receives such additional compensation may be very properly shown to the jury for their consideration when determining the weight and value of his testimony, and any fact which tends to show that he has the feelings of a partisan for the cause of one of the litigants or a bias against that of the other may be shown for the like reason.

Imputing to Another Infection with Venereal Disease.—The Supreme Court of Iowa holds, in the case of McDonald vs. Nugent, that to charge another with being afflicted with venereal disease is slanderous per se (by itself). It says that from an early date in the development of the common law of slander and libel, a charge made by one person that another is infected with a venereal disease has been held to constitute one of the few exceptions to the general rule applicable to oral slander—that, to be actionable per se, the words must impute some crime to the person defamed. Fortunately for the good name of civilized society, legal controversies calling for a consideration of this particular exception are comparatively rare, but its existence has been universally affirmed by courts administering the common law whenever they have had occasion to pass on a record like the one here before the court. The thought on which actions like this are held maintainable is not that the slanderous words impute a crime, but that the charge made, if true, or if generally believed to be true, would necessarily exclude the person thus impugned from the benefits of decent society. A charge of crime, in the ordinary sense of the word, is a mild and harmless imputation, when compared with words which brand a man or woman as a leprous outcast, and it is a healthful doctrine which holds to strict accountability any one who indulges in such injurious reflections on another. Where slanderous words, whether oral or written, are actionable per se, proof of the speaking or publication is all that is required. Malice in such case is presumed, without other evidence.

Fitting Glasses Not the Practice of Medicine.—The Supreme Court of Illinois says that there was nothing in the record of the case of People, for Use of Illinois State Board of Health, vs. Smith, recently before it, from which it could determine just what the complaint against the defendant was; but for the purposes of this decision, let it be assumed, as asserted by counsel, that the charge was a violation of Sections 7 and 8 of the act of 1899, to regulate the practice of medicine in this state—that is, by professing "to treat, operate on or prescribe for any physical ailment or any physical injury to or deformity of another," as provided in said Section 7, and being an itinerant vendor of an appliance for the treatment of diseases or injuries, as prohibited by Section 8. The finding of the Appellate Court was that all he did was to fit spectacles to the eyes of persons of defective vision, and sell them to such persons. By so doing, the Supreme Court goes on to say, he did not treat, operate on or prescribe for any physical ailment or injury or deformity of another, within the meaning of Section 7; nor did he, by advertising himself as an eye expert, and inviting persons afflicted with certain defects of vision to call on him, profess to treat, operate on, or prescribe for any physical ailment or physical injury to or deformity of another, but in the same advertisement stated that he did not give medical or surgical treatment. All that he asserted by the advertisement was that glasses fitted and ground by his method benefited, and had cured, headaches, blurring, itching, and burning of the eyes, etc. The Supreme Court also thinks it clear that he was not, under the facts here found, an itinerant vendor of any drug, nostrum, ointment, or application of any kind intended for the treatment of diseases or injury; nor did he, by writing or printing, or any other method, it says, profess to the public to cure or treat diseases or deformity by any drug, nostrum, or application, within the meaning of Section 8. It would be, it declares, a strained construction of that section to hold that the mere fitting of spectacles to the eyes of a person is an appliance intended for the treatment of diseases or injury to another. This statute is penal in its character, and must be strictly construed. It is a well-known fact that headaches, dizziness, and other similar ailments, often result from defective vision, which may be relieved by the use of spectacles; but it can not be seriously contended that the person who sells such spectacles, or who tests the eyes and fits such glasses, practices medicine or surgery, or professes to cure or treat diseases or deformities thereby. While the statute under consideration is a wise and humane regulation for the protection of the public, and should be rigidly enforced, the construction here contended for could have no other effect than to bring it into disrepute. And the Supreme Court thinks that, on the facts recited in the judgment below, the Appellate Court ruled properly in holding that the evidence did not warrant a conviction.

Current Medical Literature.

AMERICAN.

Titles marked with an asterisk (*) are abstracted below.

American Medicine, Philadelphia.

March 19.

1 *Pathology and Surgical Treatment of Pancreatic Diseases. John B. Deaver and George P. Müller.
2 *Occurrence of Diabetic and Non-diabetic Glycosuria in the Same Indi[illegible]
3 *Remarks on t[illegible] Fits, and on Severe Subcutaneous [illegible] in Epilepsy. William G. Spiller.
4 Reflex Cardiac Inhibition Resulting from Irritation of the Peripheral Fibers of the Trifacial Nerve and Occurring in the Course of an Operation for Chronic Empyema of the Frontal Sinus. George Fetterolf.
5 *The Ochsner Treatment of Appendicitis Applied After Operation. George S. Brown.
6 *Astigmatic Changes. Julius Pohlman.
7 Society for Experimental Biology and Medicine. William J. Gies.

1. **Pancreatic Diseases.**—Deaver and Müller's article discusses the subject of pancreatic disease in full, pointing out the necessity of surgical operations in cases of this disorder. In the acute forms the indications for operation are indicated by the pathology of the disease and the history of the cases. The diagnosis is difficult. The symptoms are often ill-defined so that the mortality is often high, and the time for operation is open to considerable question, but early operation rationally conducted is advisable according to Mikulicz. The technic varies with the nature of the condition. If fat necrosis is found on opening the abdomen, it is a symptom of great importance indicating diffusion of the ferment and decides the diagnosis. The bile passages should be carefully explored, especially the common duct, and the intestines and surrounding viscera carefully protected. The pancreas can be reached through the gastrocolic omentum below the stomach; through the gastrohepatic omentum above the stomach; through the transverse mesocolon back of the colon and stomach. The first method is most applicable for the purpose of drainage. It consists in dividing two layers of the peritoneum forming the gastrocolic omentum, raising the stomach and then cutting through the ascending layer of the transverse mesocolon. If the pancreas presents merely a swollen, tense, edematous appearance, without marked pancreatic involvement, an incision should be made in the long axis of the organ, extending its entire length. Drainage to this opening, though uphill, will sufficiently provide for the serous effusion and broken down cellular products. When there is severe peripancreatic involvement or great necrosis of the gland and fat, loin drainage is required after free incision of the pancreas. It is useless to try to dissect out the necrotic foci. The loin incision is made at the left costovertebral angle. Abscess, necrosis and gangrene require the same treatment. If there is stone in the gall bladder, the operation is seriously complicated as the incision is not best located for cholecystostomy, but in such cases removal of the gallstones and the establishment of an external biliary fistula greatly adds to the chances for recovery. If the stone is in the common duct great care will have to be taken to prevent subsequent peritonitis. The surgery of chronic pancreatitis is much more favorable of late years, and the history of the operations is briefly given and the technic treated. The cause of the disease must be removed, if a biliary or pancreatic stone, and temporary or permanent drainage of the bile be provided for. In cysts the operative procedure will depend on the degree of the adhesions surrounding the structures. This makes it difficult unless the cyst is pedunculated, which is rarely the case. Aspiration of cysts should only be performed when the patient is severely ill from diabetes or the effects of pressure. The cysts will always refill and the danger of leakage is great. When practicable the abdomen should be opened by a median incision above the umbilicus and by incising the gastrocolonic omentum or the transverse mesocolon. The cyst contents should be withdrawn with an aspirating needle, and as it is removed the puncture be

closed with one or more hemostats. The cyst wall is then drawn to the wound, sutured to the parietal peritoneum and drained. When it can not be brought to the abdominal wound, a rubber drainage tube should be introduced into the cavity of the cyst and surrounded with careful gauze packing to prevent leakage.

2. **Diabetic and Non-Diabetic Glycosuria.**—Stern points out the characteristics of diabetic and non-diabetic glycosuria and the possibility of their occurring simultaneously, reporting cases. His conclusions are given as follows:

1. The diabetic state may be well established before glucose is excreted by the urine. Diabetic glycosuria is nothing more than the salient feature of the second stage of the diabetic deterioration.
2. Glycosuria is a symptom, an enunciation of manifold other disturbances of ectogenous, as well as of endogenous causation.
3. With the assistance of various discrepant factors we are enabled to differentiate clinically between the diabetic and non-d'abetic form of glycosuria.
4. Duplex melituria is the result of two concurrent or intercurrent affections of dissimilar character, having the one symptom, glycosuria, in common.
5. The recognition of duplex melituria depends on the alternate prominence of one set of symptoms, including the respective glycosuria.

3. **Epilepsy.**—Spiller quotes from Hughlings Jackson in regard to the occurrence of certain fits which begin in the gustatory localization of the brain for which he has proposed the name "uncinate group," and reports cases. In one case there were also severe submucous hemorrhages in the face and right upper limb, producing decided trouble, which is a rare feature.

5. **Appendicitis.**—Brown believes in Ochsner's method after extirpation of the appendix. In his practice he has found it a valuable resource in the after-treatment.

6. **Astigmatism.**—From a study of 900 cases examined and re-examined, Pohlman found that nearly every third one showed changes in astigmatism; 50 per cent. presented simple increase in the quantity without a change of the axis; 31 per cent. gave merely a change of the axis. These two combined accounted for 81 per cent. of the total. The other 19 per cent. were almost equally divided between 1, increase of astigmatism plus change of axis; 2, change of regular to irregular, and 3, change of irregular to the regular cases. He remarks it would be interesting to know if a similar series of other observers would give like results.

New York Medical Journal.

March 19.

8 Medical Education. Willis G. MacDonald.
9 *The Dangerous (?) Operation of Uterine Curettement. Daniel H. Craig.
10 *Appendicitis in Young Children. John F. Erdmann.
11 *Post-operative Pneumonia, with a Report of a Case. Lawrence E. Holmes.
12 *Inaccuracy of the Common Spoon as a Milk Sugar Measure in the Home Modification of Milk. D. J. M. Miller.
13 Tertiary Syphilis of the Nose and Pharynx. (Concluded.) W. Scott Renner.
14 The Treatment of Paraphimosis. (Concluded.) J. N. Weller, Everett S. Hicks and R. C. Fish.

9. **Uterine Curettement.**—Craig thinks that this operation is not dangerous in the hands of a skilled operator, and that there is too much exaggerated statement as regards the danger of vaginal infection and too much downward traction in operations. He also believes in minimum dilatation without trauma to the cervical tissues. The greatest danger is the perforation of the uterine wall, which he thinks may occur without symptoms. The determination of the exact shape and depth of the uterine cavity should be determined beforehand. With the uterine curette-forceps of Emmet for the fundal and cornual mucosa the need of upward pressure is diminished and the danger of perforation is lessened, and the skilled curetter would know at once what the conditions are. The operator's sense of touch should be constantly on the alert and injury to the intestines in cases of perforation can hardly occur with one of experience. He does not favor the tampon. He thinks it more rational to clean the cavity and leave the blood and exudates to drain through the dilated cervix and wash away the organisms. The postoperative douche should be avoided as a rule for the first forty-eight hours until the cervix has had a chance to contract and there is no danger of transferring anything from the vagina to the uterine cavity. Of course, there may be cases where thorough uterine douching may be required.

10. **Appendicitis in Young Children.**—In 250 cases, seen since January, 1902, by Erdmann 29 occurred in children under 10 years of age. All the cases were acute; 22 were operated on with a mortality of 2. The appendix was removed in every instance. The youngest was 3 1/6 years and the oldest 10 years. He has also removed the appendix nine times in infants from four months to eight months of age during the same period. These ~~were intussusception cases and have no special bearing on the question of~~ appendicitis. The diagnosis under 10 years is difficult. Objective signs must be chiefly relied on, and a careful history and study of the cases if necessary. Pneumonia or pleurisy of the type with lower intercostal pain is difficult to exclude the first day or so, but as the pulse becomes very rapid and the face anxious appendicitis may be diagnosed, while accelerated breathing and a livid or flushed face indicate pneumonia. In the very young we must rely on the symptoms of pain manifested by fitful crying and sleep, abdominal tenderness, rigidity of the right lower quadrant after the first few hours, absence of blood and bloody mucus in the stools, high pulse and temperature, the tumor fixed, and in the classical region if the illness is of long duration and at this time a temperature typical of pus. Almost invariably the little patient unconsciously places his hand in the region of the appendix to ward off manipulation. This sign is almost pathognomonic. ~~Erdmann describes at length his method of operation.~~

11. **Post-Operative Pneumonia.**—After reporting a case, Holmes discusses the general subject and reviews the literature. He thinks it is much more correct to speak of post-operative pneumonia than it is to speak of anesthetic or ether pneumonia, for statistics show that pneumonia was as frequent before the anesthesia period as it is now after operations, and that it occurs also when local anesthesia is utilized for major operations. General anesthesia, therefore, does not materially increase the danger of pneumonia if the lungs are in good shape. Moreover, if there is an increased probability of pneumonia with ether than after chloroform, it is so slight as not to outbalance the greater danger of the latter agent. He advises care in giving the anesthetic, administering it slowly, not too much, keeping the patient warm during the operation and changing the position as soon as possible after it to avoid hypostatic congestion, etc.

12. **The Spoon as a Medicine Measure.**—Miller points out the inaccuracy of the teaspoon or tablespoon for drug measurement, for either solids or liquids, and gives some tests of them with sugar of milk. A teaspoon will hold 50 to 100 grains as it is leveled or piled up, and a tablespoonful may range anywhere from 150 to 215 grains, more or less.

Medical Record, New York.

March 19.

15 *A New Treatment for Fracture of the Neck of the Femur. Royal Whitman.
16 *The Soluble Ferments of Cow's Milk. Joseph Lesperance.
17 *Some [illegible] for the Fixation of Movable Kidney x. B. Johnson.
18 [illegible] from Eyestrain. James R. Nelson.
19 * [illegible] of the Bladder in Suprapubic Cystotomy. E. Blasucci.
20 Gastroenterostomy for Carcinoma of the Stomach. W. P. McIntosh.
21 *Primary Pyelitis in Infants. Marcell Hartwig.

15. **New Treatment for Fracture of the Neck of the Femur.**—Whitman advocates the treatment of fracture of the femur by overcoming the deformity by abduction of the limb and fixing by a spica bandage. In case of complete fracture, after overcoming the shortening by traction, the limb should be abducted to utilize the tension on the capsule to direct the outer toward the inner fragment contained within the acetabulum and bring them into more or less accurate apposition. Complete abduction makes the muscle contraction powerless to induce deformity. Fixation is most directly assured by contact of the neck with the rim of the acetabulum and of the trochanter with the side of the pelvis. In this attitude the support of the plaster bandage should provide the rest needed for repair. This method, which was first suggested for fractures in children, is now advocated as a routine measure for all cases of fracture of the neck in which local treatment is to be desired. The details are given as follows:

A piece of ordinary seamless shirting, such as is used for plaster jackets, about six feet in length, cut and sewed in a shape to cover the body and the limb, *is first applied* and is fixed securely in place by bands passing over the shoulders. This is threaded with several long bandages, the "scratchers," designed to keep the skin in good condition. It is also advisable to insert a substantial "dinner pad." The patient is then anesthetized and is placed in position for the application of the bandage. The head and shoulders may be conveniently supported on a box of proper length and about eight inches in height; the pelvis rests on a sacral support. This is a thin plate of steel about the size of the hand, of a trowel or heart shape, carried on an upright bar fixed to a wide base or screwed to the end of the table. Such a support is almost indispensable, because it does not interfere with the proper application of the posterior surface of the spica, as do the blocks or other supports in common use. A wide, firm band of cloth is then carried about the perineum, the two ends of which united over the shoulder and held by an assistant furnish counter traction. If *the fracture is incomplete, as is usual in young subjects,* the limb under gentle traction is slowly abducted, an assistant at the same time abducting the sound limb to prevent the tilting upward of the pelvis, and to demonstrate the normal range. If the fracture is complete, the shortening is first entirely overcome by the traction and counter traction. The limb in the extended attitude, under traction, is slowly abducted by the assistant until the trochanter is fairly apposed to the side of the pelvis; the operator meanwhile pressing the trochanter *downward and inward. In some instances* there is a distinct snap as the outer part of the neck slips beneath the rim of the acetabulum, and in any event the abduction is increased until the trochanter is firmly apposed to the side of the pelvis. In the first instance the *primary object* of the abduction is by leverage against the upper border of the acetabulum to overcome the deformity: in the second, by tension on the capsule to remove folds to appose the fragments and by actual contact of the bone with bone to oppose redisplacement.

The limb being held in this attitude, the pelvis, the ribs, the bony prominences of the knee and foot are protected with layers of sheet wadding, and the limb and body are then covered in carefully with cotton flannel bandages, which are in themselves a protection against pressure. A plaster spica is then applied, extending preferably from the mammary line to the toes. This should be drawn snugly about the hip, and most important of all, should completely enclose and support the buttock, not only to provide antero-posterior support, but to prevent the excoriations that are inevitable if the tissues are allowed to hang over the edge of the plaster. The insertion of thin strips of wood or iron about the hip and knee permits of a lighter bandage than would otherwise be possible. When the bandage is completed it is carefully cut away to allow complete flexion of the sound limb, the shirting is drawn over the edges of the bandage, carrying beneath it the cotton, and is sewed preferably to an outer cover of shirting drawn over the bandage. Thus a smooth, even surface is apposed to the body and the skin may be kept in condition by drawing the friction bandages back and forth at intervals. These bandages, popularized by Lorenz, are always placed beneath the body part of the spica and with the exercise of a little ingenuity their use can be extended to the limb also.

For greater precaution it *may* be *advisable* to cut openings in the plaster at all points where pressure is feared, and a part may be cut away from the front of the body part if the constriction is too great.

As a rule he finds this support comfortable, and the patient can be moved or even move himself. A long spica is most efficient in preventing rotation of the limb, but a short spica can be used in impacted or incomplete cases. The steps in the application are the same excepting it is more accurately molded about the pelvic crests and the joint, and is made especially thick and strong and then cut away so that a band not more than four to six inches in width remains across the front of the abdomen. The lower end may be carried a little below the knee or cut away to allow free movement of the knee if desirable. A short spica permits the patient to assume a semi-reclining position and if the limb were slightly flexed, he can practically assume a sitting posture. If a long spica is used at the end of four weeks it may be shortened to allow the action of the knee and at the end of eight weeks, if union is assured, it can be removed, followed by massage, passive movement and voluntary motion, but the limb should not be used to support the weight for *at least four months.* Crutches and a hip brace should be employed. A *short* plaster spica holding the limb in moderate abduction may be used. Of course, this treatment is adapted to the favorable class, but he thinks it can be used in practically any case with modifications as suggested.

16. The Ferments of Cow's Milk.—The history of the discovery of these bodies in cow's milk is reviewed by Lesperance, who holds that we have definitely determined the presence of trypsin and pepsin, of the lipasic and oxidizing ferments, and of a glycolytic ferment in cow's milk. There is reason to expect still further discoveries in this direction.

17. Kidney Fixation.—The methods of kidney fixation are reviewed by Johnson, who finds that the better methods of nephropexy are ordinarily successful. To select one method as superior to another is impossible. Nearly all those at present in vogue produce in the majority of cases sufficiently firm fixation of the kidney. As for sutures, he believes catgut possesses advantages over all other non-absorbable materials.

19. Dilatation of the Bladder in Cystotomy.—Blasucci discusses the amount of dilatation that the bladder can safely stand in case of operation, and concludes that a careful injection has no dangers. Limited dilatation of the bladder is preferable to none. Anatomical researches in regard to the ascent of the peritoneal fold are of little or no value to the surgeon, and we find in practice more working space than these researches would indicate. There are practically no cases where suprapubic cystotomy is indicated in which dilatation of the bladder can not be carried out. In case of female fistulous bladder and a bladder torn by trauma he would use a collapsible balloon, which should be inflated within the bladder after it is inserted, as devised by Dr. Vetere of Naples. The method of using it is very simple, and it has also the advantage of preventing the effusion of liquid in the suprapubic wound when the bladder is opened.,

21. Primary Pyelitis in Infants.—Hartwig remarks that while there is possibly some mention in the literature of this disease he has not observed it. Postmortem two cases were found to his knowledge, and he thinks the condition is not very rare. Failure to recognize the disorder, which was not known to Ewald when he lectured in Buffalo recently, depends on the fact that nothing but a careful urinary examination reveals it while its general impression is that of typhoid fever. He would urge in all doubtful cases of typhoid fever a careful examination of the urine for primary pyelitis.

Medical News, New York.

March 19.

22 *The Individual Equation of the Patient in Surgical Operations W. L. Estes.
23 *Valvular Disease of the Heart and Its Treatment. Case of Mitral Obstruction and Insufficiency with Tricuspid Regurgitation and Pulsating Liver. Stephen Smith Burt.
24 *The Clinical Significance of Pain in the Epigastrium. Frank H. Murdoch
25 *The Significance of Pus and Blood in the Urine. Richard [illegible]
26 [illegible] t Richardson.
27 * [illegible] as a Factor in the Dissemination of Disease. S. H. Brown.
28 Instrument Hanger for Glass-shelved Cases. Frederic Griffith.
29 *Forensic Eye Aspects of Tabes. Jas. G. Kiernan.

22. The Individual Equation of the Patient in Surgical Operations.—Estes points out that the history, environment, habits, personal disposition, age, sex, nativity, physical condition, extent and locality of the operation all have their influence on the result. He thinks it is the surgeon's duty to obtain all the data which will enable him to determine the importance of each of these points in any case he has to operate on. This must be done by obtaining a careful history of the patient, including the family history, and by a thorough physical examination, calling to his aid the laboratory, and he should also include a urinary examination in the personal physical observation. He thinks it is more difficult to determine when not to operate than it is when to operate, and far more important in many instances.

23. Valvular Disease of the Heart.—From the study of the conditions of valvular disease illustrated by the report of a case, Burt summarizes as follows:

Judicious treatment of a patient with valvular disease of the heart presupposes a knowledge of the distinction, and an ability to discriminate clinically, between adequate and *inadequate* compensation; possibility is *one thing,* probability is another, and finality quite another in the prognosis of these affections; although not always feasible, it is nevertheless desirable frankly *to explain* the situation, where dilatation from valvular defects is balanced by hypertrophy, in order to forestall a fortuitous disturbance of equilibrium; ordinary occupations and recreations not too strenuous need not necessarily be abandoned; systematic *outdoor* exercise, preferably walking, is *not only* permissible, but, to maintain the integrity of the heart muscles, actually indispensable; violent exertion, exciting emotions and excessive eating and *drinking* are positively injurious; temperateness in *all* things pertaining to daily existence should be the watchword; with failing compensation absolute rest is of paramount importance, and, not infrequently, all that is necessary for rehabilitation; digitalis in this condition irrespective of the valve *affected* when drugs are required is the sole remedy that can not be dispensed with; large doses may be given for a short time and small doses *for a* long time or indefinitely; strophanthus is *one of the most* reliable substitutes *for* digitalis; nitroglycerin, calomel, aconite, iron, arsenic, magnesium sulphate and strychnin are valuable adjuvants; maximum doses of strychnin should not be continued *for* extended periods without intermission; finally, ruptured compensation is the beginning of the end, however long deferred by intelligent management.

24. **Epigastric Pain.**—Murdoch points out the various conditions which may produce epigastric pain and their symptoms, reporting cases.

25. **Pus and Blood in the Urine.**—Douglas' article is a general statement of the conditions in which pus and blood may occur, and differentiation of the locality and form of the disease.

27. **The Theatrical Profession as a Disseminator of Disease.**—Brown concludes from his observation and studies that the theatrical profession is a factor of some importance in the dissemination of scabies, pediculosis, syphilis and gonorrhea by reason of its peculiar sociologic position. This influence is greater in the traveling troupes than in stock companies on account of the lack of accommodations and unhygienic conditions endured, and the living apart from the rest of the world. Moreover this class lack the proper medical information which might aid them, and the lack of time prevents them from consulting a medical man in the large cities excepting when physically incapacitated. They, therefore, fall into the hands of unscrupulous and ignorant quacks. This applies, of course, to the poorer class of actors, as successful actors are not included in this category. He thinks the remedy is not exactly clear. While the effects of the parasitic diseases mentioned are not dangerous, they are annoying, and should be prevented. Facilities for frequent bathing should be provided, and accommodations at the theaters should be such that the lesser lights can properly care for themselves. The manner in which the costumes are handled can not be too harshly condemned. With the resurrection of old costumes for a revival of any kind, it is scarcely less than miraculous that all the diseases known to man are not equally distributed throughout the company. The sterilization of these costumes at least once would do no material harm, and would greatly aid in preventing disease. It does not, however, necessarily follow that because an individual is on the stage that he is entitled to all these diseases or specially subject to them.

29. **The Eye Aspects of Tabes.**—Kiernan points out that the Argyll-Robertson pupil exceptionally occurs in many other conditions than tabes. It may occur in alcoholism as well as in parasyphilitic disorders. Its frequency in constitutional syphilis is over-rated.

Boston Medical and Surgical Journal.

March 3.

30 *The Relation of Some Special Causes to the Development of Neurasthenia. Robert T. Edes.
31 *Intra-abdominal Rupture of Ovarian Cysts. With Report of a Case. Ernest B. Young.

30. **Neurasthenia.**—Edes reviews the various causes of neurasthenia and doubts the frequent effect of overwork, but admits that it is possible. He quotes the instance of James Russell Lowell when preparing the "Commemoration Ode," and remarks that it was not neurasthenia, though he was some weeks in getting over the effects of the work. Moreover, if a lesser man had his bread to earn by performing a similar task every week and was aware that he was not doing it well, he would need but little outside pressure to bring him dangerously near the line. Then if, according to Stiller, he were pale and lean, and his tenth rib were not united by cartilage to the sternum, or if, according to Glénard, his abdominal viscera were not firmly fixed in their places, or if, according to Bartholow and many others, he were to try to indulge in that ease and luxury which are not very likely to come to a man in his position, or if he tried to brighten himself up with alcohol, tobacco or cocain, or if, according to the Austrians and French, he appealed to Venus rather than to Bacchus for relief, or if, according to Stevens and Ranney, he could not easily converge his eyes on his paper, or, according to Gould, could not focus them in their different diameters alike, he would surely cross the line. If he had done or suffered all or several of these things it would depend on the physician into whose hands he fell to say which of them was responsible and whether he should get good advice, etc., have new spectacles or get his eye muscles cut or get baths, calomel, etc., and go off a well man. Edes is in doubt as to the effect of many of these causes, and would not put full faith in them singly. He likewise considers lithemia as insufficient. He concludes his paper with a gentle criticism of Gould's recent utterances in regard to eyestrain as a cause. He considers that the unquestioning acceptance of any one of these factors or its overwhelming prominence in the mind of the practitioner, tends to relieve him of the responsibility of making the decision as to which is operative in the case before him, but his knowledge of the possible presence of any one or any two or three of them places it on him rather than on the specialist. It is too much to ask of any man that he should be familiar with the details of all the specialties, but he should be able to follow the more important signs far enough to decide when to call in his brothers, whose knowledge is more restricted and consequently more precise, and whose treatment can be more accurately adapted to each individual patient.

31. **Rupture of Ovarian Cysts.**—Young begins with a résumé of the literature and then reports a case, following it with a general discussion of the symptoms, treatment, prognosis, etc. He believes that early operative treatment is indicated according to the general consensus of opinion. The statistics of the mortality certainly bear out this idea.

Cincinnati Lancet-Clinic.

March 19.

32 *Treatment of Retrodeviations of the Uterus. Magnus A. Tate.
33 Smallpox—the Importance of Its Early Diagnosis. T. J. Shoemaker.
34 Home Treatment of Anomalies of the Ocular Muscles. Derrick T. Vail.
35 Physiologic and Psychologic Impotency. W. P. Ford.

32. **Retrodeviations of the Uterus.**—Tate finds that the theory that the perineal body has anything to do with keeping the uterus in its natural position has now very few adherents, but he thinks it is of some importance. There is no normal position of the uterus. The influences of the subject's position, fullness or emptiness of the bladder, etc., all have their effect in changing its position. The non-surgical treatment of misplacements depends mainly, in his opinion, on the general health of the patient, whether an actual cure of the retrodeviation is obtained or not. Pessaries are defective and may produce trouble, and massage has been tried and found wanting. Electricity, he thinks, has probably done more harm than good in these cases. Pregnancy may or may not be the means of curing the displacement, but certainly many cases have been benefited. Surgical treatment is necessary where complications exist. If there is a pelvis full of adhesions there is no use doing any mere tinkering; above all, do not practice massage. From his own experience he advises the Gilliam and Kelly methods. For uncomplicated retrodeviated uterus in young or middle-aged women he prefers Gilliam's method, the steps of which he describes. If the case is one after the menopause he always makes fixation after Olshausen's method, as modified by Kelly, but carrying his ligature through not only the peritoneum, uterus to peritoneum consecutively, but fascia as well. This gives a firm anchorage and holds the uterus very securely. Vaginal operations seem to him unsatisfactory.

St. Louis Medical Review.

March 19.

36 Congenital Hypertrophy of the Lower Extremity. H. W. Jones.
37 My Autobiography and Reminiscences. (Continued.) S. Pollak.

Journal of Nervous and Mental Disease, New York.

March.

38 *Is Epilepsy a Functional Disease? M. Allen Starr.
39 A Cerebellar Tumor; Operation; Recovery. Frank R. Fry.
40 *Delirium Grave. A Critical Study, with Report of a Case with Autopsy. William B. Pritchard.
41 *Paralysis Agitans; Some Clinical Observations Based on the Study of 219 Cases Seen at the Clinic of Professor M. Allen Starr. T. Stuart Hart.

38. **Epilepsy.**—From the analysis of symptoms, causes, etc., Starr concludes that an epileptic attack is a symptom of a more general disease. The disease is a disorder of control over inherent energy, and its existence is proof of a weak or defective organization of the brain. Any lesion, no matter where or what, may interfere with control and give rise to the symp-

tom. He thinks in view of these facts it is better to say that epilepsy is an organic disease of the brain characterized by lack of control over the mechanism of motor energy.

40. **Delirium Grave.**—Pritchard has studied this condition, and thinks it is a distinct psychosis which is very inadequately treated of in most text-books. The best clinical description of the disease is that given by Spitzka. A case is reported in detail. Treatment seems to be comparatively ineffective.

41. **Paralysis Agitans.**—Hart analyzes the cases of this disorder observed in Dr. Allen Starr's clinic. He found that it occurs twice as frequently among men as women; rarely before the thirtieth year. It is not especially a disease of old age, but rather of the pre-senile period. A direct heredity could rarely be found, but there is a considerable proportion of cases with nervous heredity. In only 16 per cent. of the 219 analyzed had any of the relatives been similarly affected. Among the chief causal factors are emotion and traumatism. In 12 of the cases previous infectious disease was reported and associated with the nervous disorder. He thinks we are far from solving the real etiology of the affection, but all the factors that have been suggested have a common general weakening influence on the organism and particularly on the nervous system. Tremor is the first symptom noticed by most patients. Rigidity was observed in 142 cases; contractures were noticed in 28, and a tendency to fall was observed in 173 cases. The deep reflexes were increased in 188; 90 were normal; in 30 they were diminished; and in 68 they were exaggerated. The Argyll-Robertson pupil was present in 2 and voice changes were noticed in 120 cases. Pain when present was, as a rule, not severe. Paresthesias of various kinds were present in 120 cases and hyperidrosis and restlessness were also not uncommon accompaniments. The pulse rate was above 100 in 30 and various complications were observed; they seemed to be coincident affections. Two cases complicated by hemiplegia are described in brief detail. No cures are reported, but in a number of cases there seemed to be an arrest of the disease. The treatment consisted mainly in removing the sources of anxiety and worry, relief from exhaustive and laborious occupation, attempts to improve the general nutrition, the use of moderate exercise, the systematic use of massage and hydrotherapy. In a number of cases electricity was used, but with no noticeable effect. None of the drugs recommended proved regularly beneficial. Those of most value were hydrobromate of hyoscin and sulphate of duboisine. These appeared to diminish the tremor and relieve the insomnia for the time. General tonics such as iron and strychnin were of value.

Brooklyn Medical Journal.

March.

42 *A Study of the Climate of Long Island. William H. Ross.
43 Treatment of Fractures. James P. Warbasse.
44 *Injury as an Alleged Cause of Certain Nervous Diseases. C. P. Gildersleeve.
45 Granular Lids. B. C. Collins.
46 Bradley Parker, M.D. William Schroeder.

42. **The Climate of Long Island.**—Though Long Island is one of the oldest settled parts of the United States, Ross remarks that its healthfulness is little appreciated by the medical profession. It is thought to abound in marshes, malaria and mosquitoes, but practically the opposite is true. It is approximately 15 miles wide and 120 long, with 250 miles of water front, counting its bays. It is the only considerable part of the Atlantic coast entirely surrounded by water. Its geographical formation is glacial. The island is mainly made up of sand and gravel and fine strata of clay, dipping from north to south. The ground water flows from north to south and the character of the soil modifies the climate. There is less fog than in any other section where clay land abounds more, and the water is excellent. The mean summer temperature is 70, and the mean winter 30; the mean annual temperature is 51.8. The annual range is 39 degrees, as compared with 64 to 70 and more for the whole country. The relative humidity is low, especially in the pine region. The average number of clear days is 70 more than New York City, 90 more than Nantucket and 120 more than the western part of the state. The eastern part of the island has only 12 days less sunshine than Denver and 30 less than Phoenix, Ariz. The wind direction in the summer is from the south and southwest off the Atlantic ocean, and in the winter the prevailing wind is from the northwest, producing a continental type of climate, but there are considerable periods when the wind is from the southwest and the tempering effect of the ocean is again felt. The pine forests of the island occupy the portion between the central range of hills and the south shore, six to eight miles in width, and extend for sixty miles. There is no evergreen forest in the state of New York of equal size other than the Adirondacks. Evergreen forests have a powerful purifying effect on the atmosphere, rendering it antiseptic, and, with the aseptic ocean air, which for more than six months of the year is carried through the district, the sandy soil, relatively low humidity, and large amount of sunshine, Long Island presents climatic features in its pine forest region not surpassed by any place along the Atlantic coast. Of the 3,935 deaths in 1885-6-7 of persons over twenty years of age, 1,394 were between 70 and 90 years, 642 between 80 and 100 years, 111 between 90 and 100, and 4 over 100. This is a remarkable showing, which Ross thinks is hardly equaled anywhere in the country. He thinks the climate is especially favorable for the convalescent from acute diseases, in surgical diseases to accelerate tissue change, where an equable temperature is desired, for pulmonary tuberculosis, neurasthenia, nerve exhaustion and other nervous troubles and insomnia. Tuberculosis is one of the rarest diseases among the natives and rheumatism is scarcely more frequent. Malaria does not exist except at some sections at the western end.

44. **Injury as a Cause of Nervous Diseases.**—Gildersleeve discusses the severe nervous disorders which are sometimes attributed to trauma, such as multiple sclerosis, though there is very little evidence of this condition being primarily caused by trauma. Similarly with locomotor ataxia. Trauma may be the exciting cause in a syphilitic subject, but as to its being the primary cause, he questions it. He doubts also whether it can be secondary to injury of the peripheral nerves, causing an ascending neuritis, as has been held by some others. Paralysis agitans is another disorder which is frequently ascribed to trauma. He has no doubt that certain injuries are perfectly competent to cause that disease. Neurasthenia and hysteria are also disorders that can be due to trauma, and are serious enough to be entitled to recognition by the surgeon as actual morbid entities.

Colorado Medicine, Denver.

March.

47 Cancer of the Rectum. Combined Abdominal and Perineal Operation. Charles A. Powers.
48 *Report of a Case of Congenital Dilatation of the Colon; Operation; Recovery. C. K. Fleming.
49 Diagnosis of Gastric Ulcer. M. Kleiner.
50 The Medical Treatment of Gastric Ulcer. E. P. Hershey.
51 Surgical Treatment of Ulcer of the Stomach. Edmund J. A. Rogers.
52 Etiology and [illegible] of Dilatation of the Stomach and Gastroptosis. [illegible]
53 Medical Treat[illegible] of the Stomach and Gastroptosis. W. T. Little.
54 Significance of Epigastric Pain and Tenderness. J. N. Hall.
55 Influence on the Stomach of Certain Diseases Elsewhere in the Body. F. G. Byles.
56 Influence of Diseases of the Stomach on the Nervous System. S. D. Hopkins.
57 Diseases of the Stomach in Connection with the Eyes. George F. Libby.
58 Carcinoma of the Stomach—Early Diagnosis. C. D. Spivak.
59 Carcinoma of the Stomach, Palliative Medical Treatment. W. A. Campbell.
60 Carcinoma of the Stomach—Surgical Treatment. C. A. Powers.
61 Significance of Vomiting in Diseases of the Stomach. George A. Moleen.

48. **Colon Dilatation.**—The patient operated on by Fleming, a man 25 years of age with good general history, had suffered nearly all his life from lack of proper defecation and consequent deformity of the abdomen. All sorts of cures and drugs were tried without good results. The operation was by laparotomy and the dilatation of the colon, which resembled an ovarian cyst, extended from about three inches from below the splenic flexure to the anus, and in the illustration apparently occupied nearly the whole lower portion of the abdomen with its sac-like distention. The removal of the sac was considered feasible, owing to the long mesocolon, but too dangerous, and the formation of an artificial anus was not desirable. Plica-

tion of the sac was deemed the least dangerous procedure. The operation consisted in plaiting the sac longitudinally from one extremity to the other. Seven or eight folds were taken altogether, being held by continuous chromic catgut sutures, which not only included the peritoneum, but also some of the thickened wall. After the folds were completed the sac was reduced in size to about four inches in diameter. Through fear of kinking it was suspended at its upper extremity by a catgut suture to the abdominal wall. The abdomen was then closed. The patient left the hospital in four weeks, notwithstanding an attack of catarrhal pneumonia which occurred after the operation. The bowels were regularly moved by enemas and selected diet used. He was greatly improved and his bowels moved with cathartics and enemas, which was not the case before the operation, and not infrequently spontaneous movements have occurred. Fleming remarks that he is not aware of a previous operation of this kind for this purpose, though a similar one has been used in cases of dilated stomach.

International Journal of Surgery, New York.

March.

62 Gonorrheal Inflammation of Joints. A. E. Halstead.
63 Decapsulation of the Kidney for Chronic Bright's Disease. George Goodfellow and D. L. Eaton.
64 Why the Prevailing Sterility of American Marriages? Geo. J. Engelman.
65 *A New Device and Method for Intestinal Anastomosis. W. P. Carr.
66 Reformation of the Cervical Canal After Atresia Lasting Two Years. A. E. Payne.
67 The Surgical Assistant (operations in and about the vagina). Walter M. Brickner.

65. **Intestinal Anastomosis.**—The device here recommended by Carr is the use of small silver clamps compressing the inverted edges of the two portions of the bowel. The space where the last one is introduced is closed by Lembert sutures. The article is illustrated. He thinks the method has none of the objectionable features of the Murphy button, is easy of application in most cases, is applicable to any kind of intestinal or gastrointestinal union and to any sized intestine or wound. In the one case where he employed it, most of the clamps were recovered between the sixteenth and twenty-first days.

Journal of the Michigan State Medical Society, Detroit.

March.

68 *The Lacerated Cervix Uteri: Amputation or Trachelorrhaphy—Which? H. Wellington Yates.
69 The Worth, Necessity and Duty of Medical Organization. J. M. Elliott.
70 *Intratracheal Injections: Experimental and Clinical Study of Their Value in Diseases of the Lungs. Willis S. Anderson.
71 Professional Courtesy. P. S. Root.
72 Recent Progress in Laryngology. Wadsworth Warren.
73 Epilepsy as Viewed from the Standpoint of the Sufferer.

68. **Cervical Lacerations.**—The relative value of trachelorrhaphy or amputation in cases of cervical laceration is treated of by Yates, who thinks that the Emmet operation is unfitted for conditions of great hypertrophy and hyperplasia, or where the greater part of the cervix is composed of scar tissue. The operation, which he considers most satisfactory in such cases, is that devised by Newman, published in The Journal of April 21, 1901, and which he here fully illustrates. The Emmet operation is one of choice only where there is little adventitious tissue and the pathologic conditions are both recent and simple.

70. **Intratracheal Injections.**—Anderson advocates the use of intratracheal injections in lung diseases and gives the results of experiments performed on dogs to show the absorbability of medicaments thus introduced. The best vehicle he finds is pure olive oil and he claims that the clinical use of intratracheal injections is feasible. Thousands of such have been given without injury and in most cases with great benefit. The advantages of olive oil are that it is a solvent for most of the drugs that need be used, and the claim that it is not absorbed is not borne out by his experiments nor by large clinical experience. The drugs used should be non-irritating, freely soluble and not be employed in poisonous doses. He finds that such drugs as guaiacol, camphor, menthol, iodoform, iodin and some of the essential oils are most useful. Most of his patients were given a combination of camphor, menthol, guaiacol and eucalyptus. The solution should be warmed to body temperature before the injection is made. Two illustrative cases are reported.

Ft. Wayne Medical Journal-Magazine.

February.

74 Notes on X-ray Treatment with Special References to Scirrhus Cancer of Breast. N. L. Deming.

Ophthalmic Record, Chicago.

February.

75 A Shade to Protect the Examiner's Eyes from the Bright Light When Working with the Source of Light Close to the Mirror in Photoscopy (Retinoscopy). Mark D. Stevenson.
76 Case of Acute Toxic Amblyopia from Methyl Alcohol. William E. Bruner.
77 A New Cataract Knife. Melville Black.
78 Effect of Neurasthenia on the Eyes. S. B. Muncaster.
79 Ulcus Cornea Serpens. L. D. Brose.
80 An Improved Eye Irrigator. Frank C. Todd.
81 *Simple Operation for Entropium. Report of a Case. J. H. James.
82 An Ophthalmodynamometer. C. A. Wishart.
83 The Angle Gamma and Its Relation to Strabismus. Frank E. Brawley.

81. **Entropium.**—James has operated by the method described to him by Dr. Frank Allport as follows:

> Stretching the skin of the lid as much as possible from the border upward, three or four sutures are placed in it in this manner: Pass the needle with a strong silk suture directly through the lid at or near the upper border of the cartilage, being careful to engage the cartilage with it and then pass it back again, leaving a space of from three-eighths to one-quarter of an inch between them, and tie firmly. Three of these were so placed, one in the middle of the lids and one each side half way between the first and the inner and outer canthus. These sutures were left in one week, when they were removed. By this means cicatricial adhesions are formed between the skin and the upper border of the cartilage, thus permanently everting the lid border. The operation is quickly done, and has in the past served me satisfactorily in mild cases where only a few hairs were the aggressors; but I have never before attempted it, where there was complete entropium of both lids, and where all the lashes were resting on the cornea, as in this case, and much to my surprise and delight, the result seems at this time to be as nearly perfect as it could be.

He finds this operation in mild cases extremely satisfactory and the results as good as other operations with better cosmetic effects.

Alienist and Neurologist, St. Louis.

February.

84 *Mixoscopic Adolescent Survivals in Art, Literature and Pseudo ethics. James G. Kiernan.
85 *The Life and Health of Our Girls in Relation to Their Future. James H. McBride.
86 *Outlines of Psychiatry in Clinical Lectures. (To be continued.) C. Wernicke.
87 *Medical Science, the Medical Profession, the State and the People. Charles H. Hughes.
88 The Gentleman Degenerate.

84. **Mixoscopic Adolescent Survivals.**—Kiernan's article is continued. This installment is especially devoted to certain phases of Rousseau's career as an illustration of the conditions described.

85.—See abstract in The Journal, xl, p. 1527.

86. **Clinical Lectures in Psychiatry.**—The subject of Wernicke's twenty-seventh lecture is chronic and protracted alcoholic delirium, the polyneuritis psychoses, and presbyophrenia or senile insanity. It terminates with the description of a case of a peculiar form of what he calls *acute allopsychosis* or marked hallucinatory insanity with motor restlessness and confusion, inability to recognize surrounding objects and illusions of location, etc. The lecture is to be continued.

87. **The Medical Profession and the State.**—Hughes' memorial address goes over the progress of medicine in detail, calling especial attention to the public duties of the physician. He says there was never a time when great and capable medical men were as much needed as now by the state. The people must learn what the medical profession knows and legislation should be directed for public health and public physical welfare. The more medical men who go into public service the better for the people.

New Orleans Medical and Surgical Journal.

March.

89 *Notes and Observations on Uncinariasis in Porto Rico. (To be continued.) Bailey K. Ashford and W. W. King.
90 Croupous Pneumonia; Its Prevalence and Treatment. Adrian A. Landry.
91 *Normal Salt Solution and Butter as Stimulant and Nourishment, Subcutaneously and Cutaneously Administered, in "Swamp," Enteric and Scarlet Fevers. S. L. Williams.

89. **Uncinariasis.**—The history of uncinariasis and an account of its prevalence in Porto Rico are given by Ashford, who speaks very highly of the work done by the Tricoche Hospital at Ponce. The trouble in Porto Rico is that the laborer defiles the soil and infects himself and his children. The remedy is in the establishment of latrines and the systematic enforcement of their use, public education as to cleanliness, the wearing of shoes, etc.

91. **Salt Solution and Butter as Stimulant and Nourishment.**—The title of Williams' article explains the subject, but the account of his experiences with the remedies is of interest. He reports cases where life has been apparently saved after every other means had failed by subcutaneous *injections* of salt solution and inunctions of butter *cutaneously*. *His* experience impresses him with the great absorption through the lymph capillary system and the helpfulness of keeping the skin epithelium nourished, especially in diseases where the high stages of hyperemia and the desquamation react on the nervous system. His plan in using salt solution is to insert two ordinary hypodermic needles, externally, below *the* hip-joint and *alternately fill and slowly force syringeful after syringeful*, according to the demands, using gentle massage after these injections until the results are obtained or abandoned as hopeless. With butter there is but one simple means of applying it; spreading it over and rubbing it in where the skin is thin, or all over the body when there is *fever or nervous* excitement.

Illinois Medical Journal, Springfield.

March.

92 *Spermaturia. Arthur R. Elliott.
93 *Normal Salt Solution in Surgery. F. E. Wallace.
94 *Prostatectomy, Its Indications and Technic. G. Frank Lydston.
95 Remarks on Syphilis of the Nervous System. Hugh T. Patrick.
96 The Circulation in the Labyrinth of the Ear. George E. Shambaugh.
97 *Clinical Observations on Arteriosclerosis. Charles A. Elliott.
98 *Examination of the Urine and Segregated Urines as a Means of Diagnosis in Surgical Diseases of the Kidney. M. L. Harris.
99 Report of Ten Autopsies of Cases, the Cause of Death Being Lesions of the Abdominal Viscera. P. L. Markley.
100 Case of Combined Cord Degeneration with Pernicious Anemia. Julius Grinker.

92. **Spermaturia.**—Elliott notices the conditions that cause a morbid loss of semen, calling attention to the fact that such may produce transient albuminuria. There may be a physiologic presence of seminal elements in the urine, as after sexual excitement or coitus, but there are numerous pathologic conditions, such as chronic inflammation of the prostatic urethra and ejaculatory ducts, together with dilatation and atony of the same usually following gonorrhea and urethral stricture, vesical prostatitis, habitual catheterism, hemorrhoids and venous excesses or masturbation, when spermaturia may be found in the urine almost constantly. Tabes dorsalis and traumatic lesions of the spine and myelitis have also been accompanied by it, and it has been observed in hysteric neurasthenia and in cases of spinal neurasthenia during violent exercise. The urine voided during or after epileptic seizures is found pretty constantly to contain seminal elements. He notices particularly the clinical tests where albumin reaction is obtained, such as Heller's test, where there is a faint reaction rather less than with heat and nitric acid. The potassium ferrocyanid test gives a distinct reaction which is not affected by heat, though it does not develop so quickly as with ordinary urine albumin. The potassio-mercuric-iodid and picric acid tests give plain reactions, which are partially dissolved by heat, to reappear again when the solution becomes cold. The addition of strong acetic acid to the diluted urine yields the mucin reaction, as does also Almen's tannin test used in conjunction with saturated salt solution. In short, the reactions produced by the presence of seminal elements in the urine very closely resemble those produced by serum albumin and may easily cause confusion.

93. **Salt Solution in Surgery, Etc.**—Wallace notices the conditions in which he has found good results follow the use of salt solution, in enemas one to three times a day, such as in typhoid fever, summer diarrhea, abortion, premature birth, appendicitis, alcoholism, abdominal operations, shock, scantiness of urine, acute peritonitis, etc.

94. **Prostatectomy.**—Lydston believes that prostatic overgrowth in any case warrants the consideration of the radical operation. He *classifies the cases* into those beyond middle life where the bladder and kidneys are yet normal; the same complicated by septic vesical inflammation or by secondary renal disturbance; patients from 55 to 65 in whom no secondary conditions have yet occurred; the same cases where catheter life has been established and infection *of the* bladder has occurred *and the kidney has been infected*; patients above 65 with *sound bladder and* kidneys and those where these organs are *involved*; cases in very advanced life in which the patient is suffering, and more or less secondary involvement of the urinary organs exists, and lastly, cases in apparently young subjects with sound bladder and kidneys. *These should be operated irrespective of the severity of the* symptoms. The *only exception* is where the symptoms are slight and the en*largement is simply* of a hyperplasic nature, and the progress of the disease can be checked by other measures. In young subjects with more or less secondary renal disturbance, with or without vesical sepsis, operation after proper preparation offers a favorable prognosis unless secondary renal disturbance is very *marked*. The *mortality*, he thinks, increases with age. Patients above 75 years of age, however, where vesical and prostatic symptoms have become manifest, should be offered the benefit of palliative measures. In a general way patients with sound bladder and kidneys from 65 to 75 years of age afford very favorable prognosis, provided the perineal operation is practicable. In very old patients with severe vesical and *kidney involvement* radical operations are usually contraindicated. The fact that these are the cases that have been usually operated on explains the discouraging results that have been observed. He remarks that prostatectomy of any variety is a misnomer. We only shell out the bulk of the tissue comprising the tumor and a certain amount of secondary in*flammatory intra- and extra-capsular* tissue is left behind, and *nature takes care of it. Total prostatectomy* is *not* practicable within limits of safety, and is unnecessary. Lydston's practice is to operate through the perineum if practicable, but under certain circumstances, the combined or suprapubic operation is often imperative. He illustrates the retractor, which he has found satisfactory, and gives the details of the operation, using the *inverted* Y-shaped *incision* and blunt dissection along the urethra to the apex of the prostate. Where the urethra can be drained he endeavors to do so unless the condition of the bladder is such as requires drainage; and even then a retained catheter may sometimes be used. Where the tumors are polypoid or situated very high up and are distinctly *intravesical*, the combined suprapubic and perineal operation may be required. He distends the bladder with either sterile water or weak antiseptic solutions, after thorough antiseptic irrigation. The question of air vs. fluid distention is a matter of taste. For drainage he prefers a large rigid tube, though in some cases he has used a large rubber tube. The duration of the drainage should be governed by the condition of the bladder.

97. **Arteriosclerosis.**—Elliott considers that the lesions are toxemic in character. The arterial thickening is a conservative process and not the cause of the disease. The symptoms are generally those of high arterial tension. He speaks of the value of the second aortic sound as a diagnostic sign. *As far* as treatment is concerned much can be done. The idea is first the early elimination of the toxemia and the reduction of the blood pressure. The habits of life should be thoroughly overhauled, the diet regulated and hygienic conditions generally made most favorable for normal metabolism. Overwork and mental exertion should be avoided. Medical *treatment* should be directed to reducing the blood pressure, and for this purpose nitroglycerin and the iodids appear to be of the greatest value. While the outlook is unfavorable much can often be done toward arresting the progress of the disease.

98. **Surgical Kidney.**—Harris emphasizes the *importance* of examining the urine from each kidney *separately*, and says

that with his segregator he has obtained in suitable cases very gratifying and reliable results.

California State Journal of Medicine, San Francisco.

March.

101 A Visit to Naha Hospital. J. H. Guthrie.
102 Necessity for the Systematic Annual Examination of School Children's Eyes, Ears, Noses and Throats by School Teachers, Including a Reply to Professor Leslie's Leaflet. (Concluded.) Frank Allport.
103 Grawitz Tumor of Kidney. E. O. Jellinek.
104 Case of Chronic Suppurative Disease of Both Frontal Sinuses—of Both Maxillary Antra—the Ethmoid Cells on the Right Side of the Sphenoid [illegible] [illegible]onstration of Pathologic Specimens.
105 Observations on the Prostate [illegible] to Gonorrhea. Martin Krotoszyner.
106 Contracture of the Vesical Neck. R. L. Rigdon.
107 Gastric Ulcer. E. C. Dunn.
108 Laparotomy—Report of an Operation. W. B. Cunnane.

Columbus Medical Journal.

February.

109 [illegible] [illegible]arantine in Diphtheria and Scarlet [illegible] [illegible]mith.
110 [illegible] Diseases. J. W. Clemmer.
111 [illegible] D. E. Hoover.
112 [illegible] Harry A. March.

Bulletin of the Kentucky State Medical Association, Louisville.

March.

113 Should I, the General Practitioner, Operate? C. H. Vaught.
114 Etiology of Acute and Chronic Cystitis. C. B. Vanarsdall.
115 *Diabetes Mellitus.* J. A. Flexner.

Merck's Archives, New York.

March.

116 The Development of Our Knowledge of Ergot. J. M. French.
117 An Index of Diseases Alphabetically Arranged with Their Modern Treatment. (Continued.) G. Bjorkman.
118 The Drug Treatment of Pulmonary Tuberculosis. (Continued.) H. E. Strond.

Medical Bulletin, Philadelphia.

March.

119 Mitral Disease. John V. Shoemaker.
120 Pediatric Clinic at the Philadelphia Hospital. W. C. Hollopeter.
121 Tuberculous Disease of the Knee-joint. J. P. Mann.
122 Therapeutics of Glycogen. J. De Nittis.

Denver Medical Times.

March.

123 Unilateral Hematuria from Chronic Interstitial Nephritis; Decapsulation of Kidney; Recovery. Leonard Freeman.
124 Notes on Physiologic Chemistry. Edward C. Hill.
125 Absence of the Vagina—Report of a Case; with Description of an Operation for Constructing One Artificially. C. K. Fleming.

Occidental Medical Times, San Francisco.

March.

126 Homo Delinquens (Concluded.) Knud Pontoppidan
127 A Mass of Paraffin in the Bladder and Its Removal. Harry M. Sherman.
128 Case of Aphasia. M. E. Rumwell.
129 The Finsen Ray. D. Friedlander.

Medical Examiner and Practitioner, New York.

March.

130 Some Suggestions Regarding the Form of the Medical Examiner's Report. A. C. McClanahan.
131 Rise of Blood pressure in Later Life. T. Clifford Allbutt.
132 Mutual Responsibility. W. D. Wyman.
133 Neurasthenia: the Wear and Tear of Life. Guthrie Rankin.
134 A Case of Life Insurance. Its Medicolegal Aspects Presenting Also the Question of the Relation of Pleurisy to Tuberculosis. Francis W. Goss

Kansas City Medical Index-Lancet.

March.

135 Poliomyelitis Anterior Acuta. F. W. Langdon.
136 Gastric Ulcer. Clinical, Pathologic and Surgical Phases Of. A. H. Cordier.
137 Typhoid Gangrene of the Lower Extremities; 134 Cases—Spontaneous and Surgical Amputation. B. Merrill Ricketts.
138 Medical Affairs of Cass County (Mo.). J. S. Triplett.
139 Therapeutics of Some of the More Recent Electrical Currents. J. N. Scott.

Medical Mirror, St. Louis.

February.

140 Recent Physical Methods in the Treatment of Skin Diseases and Cancer. Charles W. Allen.
141 How Shall We [illegible] T. Conley.
142 Organic Iron [illegible] Anemias—A Clinical and Hemat[illegible] [illegible] S. Chibas and G. A. De Santos Saxe
143 Quarantine. P. C. Kallock.

Medical Fortnightly, St. Louis.

February 25.

144 Sleeplessness. John W. Colbert.
145 Case of Exophthalmic Goiter. J. W. Newcomer.
146 Influence of Emotions Causing Acute Glaucoma. W. Nobbe.
147 Autopsy Findings in a Case of Abdominal Pulsation Presented to the Society for Diagnosis, May 21, 1903. Walter C. G. Kirchner.

Journal of Advanced Therapeutics, New York.

March.

148 Plea for Electro-therapeutics Proper. (To be continued.) W. J. Herdman.
149 *Present Status of X-ray Therapy in the Management of Cancer. Clarence E. Skinner.
150 Lobar Pneumonia a Secondary Disease, Preventable and Controllable by Physical and Dietetic Methods. (Continued.) Morris W. Brinkmann.
151 A New System of High Frequency Therapeutics. Frederick F. Strong.
152 Physio-pathologic Action of High-frequency and High-tension Currents on the Normal Skin. Histologic Researches. G. Arienzo and S. Fabrozzi.

149.—See abstract in The Journal, xli, p. 978.

Kansas City Medical Record.

February.

153 The Treatment of Rectal Strictures. E. H. Thrailkill.
154 Septic Fever. Henry C. Jarvis.

FOREIGN.

Titles marked with an asterisk (*) are abstracted below. Clinical lectures, single case reports and trials of new drugs and artificial foods are omitted unless of exceptional general interest.

British Medical Journal, London.

March 12.

1 *Extensive Carcinoma of the Esophagus, with Unusual Nervous Complications. Robert Saundby and John T. Hewetson.
2 Case of Syphilitic Convulsions Preceded by Marked Somnolence of Long Duration. William B. Bennett.
3 Bilateral Neuritis of Fifth and Sixth Cervical Nerves. C. H. Cattle.
4 Deep Ulnar Nerve Paralysis and Functional Powers. Tennyson Patmore.
5 Reflex Disturbances Associated with Adherent Prepuce. Robert M. Simon.
6 Te[illegible] [illegible]uco-membranous Colitis and [illegible]on.
7 Ca[illegible] During Whooping Cough and [illegible]
8 Lesion of Post-central Convolution Without Paralysis. C. Birt.
9 *Alleged Increase of Diseases of the Nervous System. John M. Rhodes.
10 Case of Properitoneal Hernia. H. Betham Robinson.
11 Abstract of a Report on a Recent Outbreak of Illness Due to Milk. Henry Kenwood.

1. Carcinoma of the Esophagus.—This case, which is carefully reported by Hewetson and Saundby, is of interest especially as being an exception to Semon's law of the early implication of the abductor laryngeal muscles. The law is stated as follows:

> The occurrence of isolated paralysis of the abductor filaments of the recurrent laryngeal nerve in cases in which the roots or the trunks of the spinal accessory, pneumogastric and recurrent nerves are injured or diseased, is not an isolated pathologic curiosity. There is a distinct proclivity of the abductor fibers to become affected in such cases either at an earlier period than the abductor fibers or even exclusively.

In the case here reported the adductors were distinctly involved while the abductors appeared to act well until a few days before death. Both physiologically and pathologically the adductor displacement was earlier and more intense than that of the abductors.

9. Increase of Insanity and Nerve Diseases.—Rhodes uses statistics to show that the prevalent notion as to the increase of nervous disease and insanity is not entirely correct. He points out that while general paralysis, insanity, paraplegia and some other diseases of the nervous system seem to be on the increase still others, reported under the names of softening of the brain, epilepsy, etc., have markedly decreased within the past ten years. He thinks the figures make it almost questionable if there is an increase in nervous troubles, but still some, admitting this, assert that there is a terrible increase in insanity. He takes up this question and finds that the total number of insane has risen markedly and that the low recovery rate under better care casts a burden on the tax payers. The most potent of the changing conditions in producing insanity is the crowding of the population into towns and with that crowding has come the increase of rents, making housing a serious matter to the poorer classes. The confidence of the public in the state care has gradually increased and the visible cases of insanity are consequently more numerous.

The Lancet, London.

March 12.

12 *Treatment of Cancer of the Breast by Operation. W. Watson Cheyne.
13 *Evolution and Action of Certain Muscular Structures of the Heart. Arthur Keith.
14 *Congenital Origin of Hernia. R. Hamilton Russell.
15 Ambulatory Treatment of Fractures of the Lower Extremity by Hoeftcke's Modified Hessing's Splint Case Appliance. T. H. Openshaw.
16 *Inquiry Into the Source of Scarlatinal Infection and Its Bearing on Hospital Treatment. R. E. Lauder.
17 *Abstract of a Contribution to the Study of the Action of Indian Cobra Venom. R. H. Elliot.
18 Treatment of Incontinence of Feces by the Submucous Injection of Paraffin. Arthur H. Burgess.
19 *Therapeutics of Ichthyol Compounds; with Special Reference to Ichthoform and Ichthargan. James Burnet.
20 Case of Metritis and Cellulitis in the Puerperium Treated with Antistreptococcic serum. John W. Duncan.

12. **Cancer of the Breast.**—Cheyne advocates the complete operation in cancer of the breast, clearing out the lymphatic glands and vessels in the axilla and removing all skin over the prominent part of the breast, and if the cancer is laterally situated, the skin incision should nowhere approach the cancer closer than a couple of inches. The question as to whether the glands in the posterior triangle of the neck should also be removed in all cases is mentioned and he has become inclined to clear the supraclavicular space more than formerly and take out the fat and glands of the lower neck. Any marked enlargement of the supraclavicular glands in his opinion makes the case an inoperable one. He goes into the figures in his own experience; he has had 34 private patients that he was able to keep track of to some extent. In these cases from 6 to 13 years have elapsed since the operation; 17 of these 34 cases are still alive and well, without recurrence. In 14 cases recurrence has taken place and 11 of these have died from the disease; 2 patients have died of other troubles, one without any recurrence 2 years later, and the other 7 years after operation. One case has been lost sight of. The figures, therefore, show that from 50 to 55 per cent. of the cases are alive and well after periods ranging from 6 to 13 years. If these cases had been selected ones he would probably have excluded 11 of them; 2 of these, indeed, were practically hopeless from the start. Nevertheless, of these 11 cases, 4 have remained free from the disease, 1 for 10 years, 1 for 9½, 1 for 7½ and 1 for 7 years, the latter dying of heart disease. He analyzes the cases according to the rapidity of growth, the extent of the disease and the appearance of recurrence, etc., and holds that if the deposits are not cut into at the time of operation and removal is sufficiently extensive, the chances are that at least 50 per cent. of the cases will recover. Cancer is a very local disease in its commencement. If all that exists of it can be gotten rid of, there is no reason to expect a recurrence.

13. **Muscular Structures of the Heart.**—Keith continues his lecture on the muscular structures of the heart as relating to function, showing the manner in which the valves are rendered competent and orifices closed. He thinks we should restore to some extent the former relationship between the anatomy and physiology, for no description of the anatomy of the heart can be considered satisfactory unless it shows the meaning of the structure of the organ.

14.—This article appeared elsewhere. See The Journal of March 12, ¶17, p. 741.

16. **Scarlatina.**—Lauder holds that infection in this disorder is due to throat involvement and not to desquamation. In the Southampton Fever Hospital the patient is examined and a swab taken from the throat for bacteriologic examination; doubtful cases are put in the observation ward and detained or sent home, according to the diagnosis, the ward being disinfected immediately after their removal. Typical cases of scarlatina are put into the "acute room" and kept there until the acute stage is past and diphtheria is excluded. They are then removed to the general ward, where recent cases are kept apart from the convalescent ones. This is done with the mild as well as with the severest forms. If at any time aural or nasal discharges, enlarged tonsils, glands, etc., develop, the patient is moved from the general ward to a special pavilion reserved for such complications. At the end of the third week, if free from complications, the patients are transferred from the general ward to another pavilion which has been thoroughly disinfected and to which no cases are admitted except through the out-bathing station with the same precautions as if they were discharged from the hospital. They are kept here for one week, apart from all the other patients, and the nose, throat and ears carefully douched with a disinfectant each evening after bathing. At the end of a week—that is, at the end of the fourth week of the disease—they are sent home after passing the out-bathing station, without regard as to whether they are still peeling or not. After they are discharged no patients are admitted into the same pavilion until it has been thoroughly disinfected. The general wards are thoroughly disinfected at least once a month. These methods have not only freed them from the occurrence of albuminuria, enlarged glands, discharges of the nose and ears, but have reduced the duration of the fever and the periods which the patient had to be kept in bed and left them during the year without a single case of post-scarlatinal diphtheria or relapse. He gives a tabulated analysis of cases and brief accounts of a few.

17. **Cobra Poison.**—This research was undertaken by Major Elliot to ascertain the precise part played by the action of the poison on the various important centers and organs. A condensed summary of his conclusions is here given: 1. Cobra venom acts directly on the muscle tissue of the blood vessels or through their vasomotor nerve endings, contracting the arterioles and raising the blood pressure and in frog vessels the action can be traced down to a dilution of 1 in 10,000,000. 2. Cobra venom also acts on the isolated frog ventricle, killing in it a position of firm systole if the solution is concentrated and stimulating it if a weak strength is employed. The limit of the speedy lethal action on the isolated heart is reached at a concentration of about 1 in 500,000 and the stimulating action can be traced down to at least 1 in 10,000,000. This action brings cobra venom into the line of glucosids of the strophanthin group, though its action is much more rapid. Atropin sulphate intensifies the action of cobra venom. 3. Cobra venom powerfully affects the isolated mammalian heart when the solutions are introduced through the coronary circulation. The actions seem to be two; one, directly on the heart muscle and nerve endings, and the other on the intracardiac vagal mechanism which makes for inhibition. The result is that with a strong solution we find irregularity and extreme excitement of the heart followed by early death in systole, and with lesser concentration this yields to a prolonged phase in which the tonic action of the poison on the heart is pronounced. Cobra venom interferes with the circulation through the heart in a marked manner, probably through contraction of the coronary vessels and a condition of tonus. 4. In low lethal dose cobra kills by paralyzing the respiratory center. This is gradually evolved and there is evidence of heart stimulation preceding the paresis as greatly increasing the venosity of the blood and slow asphyxiation. If the life is prolonged by artificial respiration and if the dose is very small, the phrenic and other motor nerve endings may become paralyzed. The convulsions preceding death are purely asphyxial and each is followed by a phase of exhaustion of the respiratory mechanism which is almost certainly central. If a large dose is given the respiration is quickly affected and may cease at once, and the patient dies if artificial respiration is not quickly resorted to. With a smaller dose the rhythmic activity of the center reasserts itself, but it ultimately fails. By applying cobra venom directly to the exposed medulla of a rabbit Elliot found that the respiratory center may be paralyzed without the phrenic nerve ends of the heart being appreciably affected. If very large doses are injected death may occur by cardiac failure before the respiratory mechanism gives way. 5. Cobra venom in low lethal doses subcutaneously raises the general blood pressure, but the drug acts on the muscle tissue of the vessels and increases the force of the heart beat and stimulates the vasomotor center. The late fall in the heart beat is due to cardiac inhibition caused by gradual

asphyxiation and the direct stimulating action on the vagal inhibiting center, and probably also by stimulation of the vagal nerve ends by the circulating venom. It is probable that a stage of exhaustion of the heart muscle follows early stimulation and the exhaustion of the heart is probably produced by the strain of having to work against the abnormally high blood pressure. 6. When injected in large doses and given intravenously there is a sudden fall of the blood pressure and a subsequent rise, provided the dose has not been too large, and a final fall to zero. The early fall is undoubtedly due to inhibition. 7. When the secondary rise of blood pressure following the primary fall occurs it is due to the same factors which caused its occurrence when the small dose was injected. It is merely a question of cardiac failure. The direct inhibitory action of the venom through the vagal center is capable of overcoming the tendency which the blood circulating through the heart muscle has to throw that muscle into death in systole. If it were not for these two rival forces cobra poisoning would kill by its direct action on the heart muscle. When the dose is very large the direct muscle stimulation may be so intense as to overcome the maximum inhibitory impulse and the heart dies in systole with a quickened beat and is found after death as hard as a contracted postpartum uterus.

19. **Ichthyol Compounds.**—Ichthyol is a hydrocarbon oil obtained from a fossiliferous mineral and this, after being acted on by sulphuric acid, gives us ichthyol-sulphonic acid. It is the ammonia salt of this acid which is known commercially as ichthyol. Burnet reviews the various compounds and their substitutes: 1. Iron-ichthyol or ferrichthol, a brownish-black amorphous powder, odorless and tasteless, which has been very useful in his hands, in some cases when other iron preparations could not be tolerated. He thinks it is an excellent remedy in secondary anemia. In chlorosis he has, however, seen no good follow its persistent employment. He thinks the action of iron is greatly aided by the presence of ichthyol and that it has a wide sphere of therapeutic application in all its combinations associated with anemia. His own observation of its value in general diseases are borne out by Unna in regard to dermatologic conditions. Sodium-ichthyol is a solid preparation which is not so active in pulmonary disease as the original ammonia salt, though more easily taken. It checks the fermentative processes in chronic gastric catarrh. Generally speaking, when ichthyol is indicated, this should be prescribed except in case of pulmonary disease. Calcium-ichthyol is well suited for use in dermatologic practic and is readily taken by children. Within the last few years ichthyol has been made use of as a vehicle for certain insoluble agents such as cresol, eucalyptol and even iodin. Out of all the preparations he thinks two stand forth pre-eminently, viz., ichthoform and ichthargan, the former being a compound of ichthyol with formic aldehyd and the latter a silver salt of ichthyol. He finds ichthoform of value as an intestinal astringent and antiseptic, in summer diarrheas of children, etc. It is not poisonous and can be given in doses ranging from 2 to 10 grains three times a day. He prefers to give it as a sandwich between bread and butter. He thinks rectal administration should also be tried. Polacco has used it in enteric fever in doses of .5 gram frequently repeated, with good results. As a dusting powder in varicose ulcer he has found it of special benefit and for foul ulcers he knows no more trustworthy remedy. With equal parts of boracic acid it will be found serviceable as a dusting powder for general use. It is also of special value as an ingredient in ointments and he has suggested its use in the form of ichthoform gauze as a substitute for iodoform gauze for packing cavities. He says it is one of the most efficacious antiseptics we at present possess, especially in cases of intestinal disease where its action is most certain, is more certain and less harmful than salol or similar substances and is an excellent substitute for iodoform where the latter is indicated, is odorless and markedly nontoxic. For internal administration it is best given in small doses frequently repeated. His experience with ichthargan has not been so extensive as with ichthoform, but he speaks of its value in gonorrheal urethritis, gynecologic affections, dermatologic practice and nose and throat disorders. He says it is the remedy par excellence in atrophic rhinitis. It may be safely given internally in a mixture of from 0.5 to 2 grains in 8 ounces of water, of which a teaspoonful is taken three or four times a day. It seems to be useful in promoting healing in gastric ulcer and has been recommended by various observers in eye diseases; in ointments for skin disorders he has found it of very great use.

The Practitioner, London.

March.

21 *Diagnosis of Enteric Fever. Claude B. Ker.
22 *Anti-typhoid Inoculation. A. E. Wright.
23 *Black Urine. Archibald E. Garrod
24 Series of Cases of Cancer of the Mouth and Fauces. Stanley Boyd and W. H. Unwin.
25 Two Lectures on Eczema. Arthur Whitfield.
26 [illegible] tory in Egypt. F. M. Sandwith.
27 [illegible] So-called Chronic Metritis and Endo- [illegible] Relation to the Life-history of the [illegible] E. Fothergill.
28 [illegible] Work in Ophthalmology. E. Treacher Collins.
29 Health Factor in Education. F. G. Bushnell.

21. **Diagnosis of Typhoid.**—The early diagnosis of typhoid is often impossible, and medical aid is seldom called in until the case is somewhat advanced. Ker notes the appearance and facial expression, which are suggestive; the slight hectic flush and widely dilated pupils are often observed during the first fortnight. The gradual rise of temperature is a point of interest, also dicrotism of the pulse and a lower rate than would be expected from the high temperature. This combination should always suggest typhoid. Again during the early period it is unusual to find the respiration very frequent, and if above 28 or 30 in the adult we should suspect pulmonary disease in preference to typhoid. Tumidity of the abdomen is so much the rule that a case of flat or hollow abdomen is usually not typhoid. The value of gurgling is overrated. The main point is the recognition of the spots. They are not seen in half the hospital cases, but in many instances it is probable that they have been present previous to admission. Their absence is of no value in diagnosis, though their presence is typical and practically final, and the presence of even atypical spots is of considerable value in the diagnosis. The presence of slight bronchitis or bronchial catarrh has not been duly estimated. A case of continued fever without definite symptoms, but with a slight degree of bronchitis, is very probably typhoid. The list of diseases which may be mistaken for typhoid is very large, and the chest should be thoroughly examined before the diagnosis is made, to exclude pneumonia and tuberculosis. Some cases of tubercular meningitis may give trouble, and, in the early stages, tubercular peritonitis. Colon bacillus infections are also mentioned as producing difficulty, but these cases should be treated the same as enteric. The diazo-reaction is found in other conditions, and its chief value is rather in its absence than in its presence. A case of continued fever not giving this reaction between the sixth and twelfth days is in all probability not typhoid. The leucocyte count in typhoid is low, the multinuclear cells are diminished in percentage and the uninuclears are increased, while the eosinophiles are few. The blood changes, however, are of only limited value in the diagnosis. The isolation of the bacillus and the serum reaction tests are the real final proofs. It is well to inquire, however, whether the patient was ever vaccinated against typhoid or has had typhoid previously. A negative Widal reaction in the first fortnight means little, but if still negative in the third week is strong presumptive evidence against enteric fever. After three weeks a negative reaction practically excludes the disease.

22. **Antityphoid Inoculation.**—Wright gives the technic, dosage, symptoms and results. He advises two consecutive inoculations adjusted to avoid the supervention of constitutional symptoms rather than one severe one. He points out the fallacies and errors that may occur and gives elaborate tables. He thinks that undoubtedly a reduction in the incidence of typhoid fever was achieved in S. Africa, varying from six-fold to twenty-eight fold and a striking diminution in the mortality. The death rate among the inoculated was comparatively small. As regards the duration of the protection, it

appears that it may exert a protective effect for two years after the inoculation.

23. **Black Urine.**—The various conditions which may cause a dark-colored urine, including jaundice, hematuria, hemoglobinuria, hematoporphyrinuria, melanotic sarcoma, alkaptonuria, ochronosis and various drug effects are described by Garrod. True melanuria associated with melanotic sarcoma is rare. One must be acquainted with all the conditions and the means of distinguishing one from another before one can estimate their diagnostic importance. This is also still more true as regards prognosis, as whereas the occurrence of true melanuria is an event of the worst omen, as indicating the recurrence of melanotic growths in the viscera, there is an equal degree of blackness in alkaptonuria, which, so far as we know, is harmless. Between these extremes are various conditions of differing degrees of gravity.

Journal of Tropical Medicine, London.

March 1.

30 *Canine Malaria. A. B. Dalgetty.
31 Elucidation of Sleeping Sickness. (Continued.) Louis Sambon.
32 Effects of Anti-malarial Campaign at Ismailia. Professor Boyce.

30. **Canine Malaria.**—See editorial in this issue.

Presse Médicale, Paris.

33 (I, No. 15.) *La myélémie. Sa valeur séméiologique. P. E. Weil and A. Clerc.
34 *Les hérédo syphilitiques. A. Boissard.
35 *Action thérapeutique des leucocytoses provoquées. F. Ramond.
36 *Le formol géranié dans le traitement de la carie dentaire. André and Marion.
37 (No. 16.) Hommage au professeur Bouchard. See page 720.
38 *La sérothérapie du cancer. E. Doyen. From society report.
39 A propos de l'hypertension artérielle. R. Teissier. Ibid.
40 *Les capsules surrénales dans 3 cas d'athérome artériel. O. Josué. Ibid.

33. **Diagnostic Value of Myelemia.**—Contrary to what is observed in experimental research, in man no acute affection, with the exception of purpura and smallpox, determines decided myelemia. Leukemia and allied conditions constantly determine a myeloid reaction in both the blood-forming organs and the blood, but while in leukemia and certain cases of splenomegalia the myeloid hyperplasia resembles that of malignant growths by its exuberance and generalization, in typical pernicious anemia the process seems to be limited to a rejuvenation, a simple metaplasia. Besides these, there is only Biermer's disease which is accompanied by myelemia. The diagnostic value of myelemia is, therefore, most marked in smallpox, and it frequently allows the rash to be promptly differentiated from measles, scarlet fever and atypical syphilis. The myelemia does not always occur at an early stage, but when vesiculation commences it seems to be constant, and is always intense in comparison with the attenuated and inconstant myelemia observed in the purpuras. Myelemia is also extremely important for the differentiation of splenomegalia, accompanied by myelemia, which seems to be particularly malignant in the adult. The various forms of myelemia and the affections in which it is noted are carefully studied under the headings of leukemic myelemia, aleukemic myelemia and myelemia in acute or subacute infections. The authors protest against the term "pseudoleukemia" as being incorrect—there are no false diseases.

34. **Inherited Syphilis.**—Boissard comments on the fact which seems to be established that when a woman has once borne a child to a syphilitic all her children born afterward are liable to bear some syphilitic taint, although she may never have had but the one intercourse with a syphilitic, and the father of her other children may be sound. In his experience at Tenon Hospital he has frequently observed infants who seemed decrepit, arrested in their development, "without aptitude for life." Their curves of growth remain horizontal instead of rising, and this notwithstanding that the children are always hungry and crave more than the standard quantity of milk for their weight. Little dependence can be placed on the mother's statements, but her obstetrical past may suggest inherited syphilis, and the way in which the children thrive on mercury proves that it is needed. He gives it in the form of van Swieten's solution, twenty to sixty drops or even more, his experience demonstrating that newly born infants bear mercury remarkably well, probably on account of the good kidney elimination and the absence of teeth. He usually gives the mercury for twenty days at a time, with ten-day intermissions. He insists that this mercurial treatment must be kept up for several years, with intervals of suspension; returning to it whenever the child shows any arrest in its development in any way. He thinks that many instances of abortions or sterility may be due to unrecognized inherited syphilis, that is, to the syphilis of the grandparents.

35. **Therapeutic Action of Induced Leucocytosis.**—Ramond reports the results of research undertaken under the direction of Chantemesse. They show that the leucocytes which gather under the influence of the measures taken to induce hyperleucocytosis are destroyed by the action of these measures. New leucocytes take their place, but they are too immature to display phagocytic action, and acquire it only after a certain length of time. Consequently the induced hyperleucocytosis is in reality merely the destruction of the reserves of leucocytes which the organism has been keeping on hand in readiness for emergencies. The simultaneous injection of microbes and of the substance destined to induce hyperleucocytosis accomplishes better its purpose as the gathering leucocytes are able to deal with the pathogenic agents at once. But in the clinic, the physician is not summoned until the infection is already established, and hence can never take advantage of this phenomenon.

36. **Formaldehyd for Disinfection of Carious Teeth.**—André lauds a combination of formaldehyd and essence of geranium as the most powerful disinfectant and deodorizer known, while it does not injure the teeth in any way. His formula is 4 parts formaldehyd and 2 parts redistilled essence of geranium in 4 parts of 80 per cent. alcohol.

38. **Serum Therapy of Cancer.**—Doyen isolates from neoplasms of rapid growth a microbe to which he gives the name of *Micrococcus neoformans*. He described it in 1901, and he has been experimenting with vaccines and toxins derived from it. He has thus treated 126 cases and reports 21 as cured, 47 improved and still under observation, and negative results in 58. He states that eight months of cultivation are required for the production of a powerful toxin. The culture medium which he prefers is a peptonized bouillon made from cow's udders.

40. **Atheroma Due to Suprarenal Capsules.**—Josué suggested that arterial atheroma might be due to the suprarenals when he observed the high arterial tension which is induced by injection of suprarenalin and adrenalin. This theoretical assumption was corroborated by experimental research, and he now announces that the necropsy of three subjects with arterial atheroma still further confirms it. All three exhibited the anatomic evidences of hyperfunction of the suprarenal capsules.

Semaine Médicale, Paris.

41 (XXIV, No. 9.) The Heart in Case of Curvature of Spine or Deformed Thorax. E. Barlé.—Le coeur dans les déviations du rachis et dans les déformations thoraciques.
42 *Suture tendineuse. F. Lejars.
43 Sur l'émission des rayons N dans certains phénomènes d'inhibition. A. Charpentier and E. Meyer. From society report.
44 *Emission des rayons N dans quelques affections nerveuses. G. Ballet. Ibid.
45 Action des radiations du radium sur l'hémoglobine, les ferments et les globules rouges. V. Henri and A. Mayer. Ibid.
46 Sur la sensibilité vibratoire dans les affections nerveuses. Marinesco. Ibid.
47 Lymphocytose du liquide céphalo-rachidien dans 3 cas de névralgie du trijumeau. Pitres (Bordeaux). Ibid.
48 Pregnancy Both Uterine and Abdominal in a Dwarf. Cesarean Section in Former Pregnancy. Van Cauwenberghe. Ibid.
49 *Radium Treatment of 6 Cases of Carcinoma in Esophagus. A. Exner (Vienna). Ibid.
50 *Les injections rétro-rectales de solution physiologique contre l'incontinence nocturne d'urine. Jaboulay. Abstract.
51 *Le salicylate de soude dans le traitement de la chorée d'origine non rhumatismale. Zaoussailov. Abstract.

42. **Tendon Suturing.**—Lejars illustrates a modification of the latest methods of suturing a severed tendon, which he thinks is more solid and less liable to pull out than any yet proposed. The needle is passed back and forth through the tendon stump to make a cross, each arm of which consists of

two parallel lines of thread. The ends of the thread are then tied around the stump of the tendon and the two stumps are approximated and tied together by these threads, supplemented by a few sutures at the edge of the stumps.

44. **N Rays in Nervous Affections.**—Ballet has found that there is less emission of the N rays in affections involving the peripheral motor neuron, such as paralysis or atrophy resulting from myopathy, neuritis or poliomyelitis. On the other hand, in affections involving the motor protoneuron, such as old hemiplegia with contracture, or spasmodic paraplegia, the emission of N rays is more marked from the paralyzed muscles than from their sound mates.

49. **Radium Treatment of Cancer of the Esophagus.**—Exner has treated 6 cases of cancerous stricture of the esophagus by introducing a scrap of radium embedded in dammar and fastened to a No. 16 sound. In 5 cases the stricture became enlarged and the dilatation persisted after the treatment was suspended. The increased permeability of the stricture is probably due to necrosis of the stricture tissue under the influence of the radium, and it thus gives permanent results.

50. **Retrorectal Injections of Salt Solution to Cure Incontinence.**—Jaboulay injects about 100 gm. of physiologic salt solution into the cellular tissue behind the rectum as a means of acting directly on the hypogastric plexus. The needle of a Roux syringe is inserted at the tip of the coccyx or to one side. No anesthesia is required. If one injection is not enough he repeats it two or more times and increases the amount. Incontinence of urine rebellious to all other measures was cured by two to four of these injections. The subjects were young women. In one case the amount injected was doubled at the two final injections before a cure was realized.

51. **Salicylate of Soda in Chorea.**—In 4 cases which had resisted arsenic, iron, bromid, etc., the children were promptly cured by a systematic course of salicylate of soda, although not a single feature of the cases suggested rheumatism or heart complications.

Berliner klinische Wochenschrift.

52 (LI, No. 9.) *Ueber [illegible] [illegible]anischen Stromes auf Tetanus-Gift, [illegible] Toxin-Antitoxin-Gemische. P. H. [illegible].
53 *Uebe[illegible] [illegible]ctericiden Reaction im Blut-Serum de[illegible] Stern and W. Korte (Breslau).
54 *Zur [illegible] von Toxin und Antitoxin. Svante Ar[illegible]
55 Repl[illegible]
56 Das Megalerythema epidemicum. Die Grossflecken. (Erythema infectiosum Stickler). Ein acutes Kinderexanthem. Plachte (Berlin)—Rubeola.
57 Zur Frage des osmotischen Druckes der Ex- und Transsudate. C. v. Rzentkowski (Warsaw).
58 (No. 10.) Ueber einige seltener vorkommende peripherische Lähmungen. M. Bernhardt (Berlin).
59 Ueber die Intensität der Cholera-Amboceptoren-Bildung beim Kaninchen unter dem Einflusse der Alkoholisirung und der Misch-Impfung. E. Friedberger.
60 *Die Fürsorgestelle in der Charité. P. Jacob.
61 Anatomische Befunde bei der Wurmfortsatz-Entzündung und die Indication zur Appendectomie. Karewski.
62 *Die Behandlung der Ozaena mit Hart-Paraffin-Injektionen. R. Fliess.

52. **Action of Galvanic Current on Tetanus Toxin and Antitoxin.**—Von Behring and Römer announce that application of a weak galvanic current increases the toxicity of a solution of tetanus toxin and reactivates an inert one. The toxicity of the fluid which accumulates at the cathode varies from that at the anode, and other paradoxical facts were noted, among them the phenomenon that sometimes a mixture of tetanus toxin and antitoxin proves more toxic when inoculated into small laboratory animals than a larger dose of the same mixture. The concentrated mixture proved harmless, while the tenth and fortieth dilution induced acute and fatal tetanus, and even the hundredth dilution killed a mouse. Behring regards as fundamentally important the findings of these experiments that the toxic action of the tetanus toxin molecule in a colloidal solution can be enhanced by conducting a weak current through it. Further experiments with other colloid solutions are in progress, and those with milk protein molecules are proving interesting. A whey free from casein is obtained from fresh milk and displays considerable bactericidal action in respect to the colon bacillus. When a 1 ampere current is conducted through this whey for ten minutes this antibacterial energy is found much more intense in the fluid collected near the anode, while it is much diminished at the cathode. Ultramicroscopic examination also showed that 2,000 molecules were visible in the fluid at the anode while only 25 could be discovered at the cathode and 1,000 in the intervening fluid. Whey not submitted to the electricity presented an average of 100 molecules in the field at each inspection anywhere in the fluid. Similar research on an anti-colon bacillus horse-serum, which showed about 50,000 molecules to the field beforehand, after a current of 1 ampere had been passed through it for fifteen minutes exhibited extremely intense bactericidal action and 400,000 visible molecules in the fluid near the cathode, with only 7,000 at the anode.

53. **Bactericidal Reaction in Serum of Typhoid Patients.**—Stern and Korte advocate tests of the bactericidal action of the serum as a more delicate diagnostic measure than agglutination. Less than half an hour is required for it, and the results are manifest in eight hours, or at most by the next morning. The principle of the test is the addition of the suspected serum to a combination of fresh normal serum and typhoid bacilli. By constantly reducing the amount it is possible to determine the smallest proportion which still displays bactericidal action. The suspected serum is heated to 56 C. to render the complement inactive, and is placed in a row of test tubes, diluted to 50, 100, 1,000-fold or more with .85 per cent. salt solution. The tubes are filled in turn with one-half, one-fourth, one-eighth, etc., of the original dilution and then filled to 1 c.c. with the saline. Then .5 c.c. of a 1/5,000 twenty-four hours' bouillon culture of typhoid bacilli is added to each tube, and also .5 c.c. of fresh rabbit serum diluted 10 or 15-fold with .85 per cent. salt solution. Each tube then contains 2 c.c. of fluid and the bacilli, with graduated proportions of the suspected serum. The set of tubes is then placed in the incubator and after three or four hours the contents are poured out on agar plates. These are kept for twelve hours in the incubator at the same temperature (37 C.), or the test can be limited to mere inspection of the tubes after eight hours in the incubator. In the controls, 35,000 colonies and more developed, while with dilutions of 1/2,000 to 1/16,000 none developed with the typhoid serum, and only 100 to 1,000 colonies in the dilutions above this to 1/256,000. The bactericidal action was still marked in a dilution of 1/4,096,000. The writers think that this method is destined to supplement the agglutination test in dubious cases and possibly supplant it where an early diagnosis is necessary. They had no opportunity to test any patients before the eighth day.

54. **Physical Chemistry and Serum Therapy.**—[Arrhenius is the noted Swedish physical chemist to whom one of the Nobel prizes was recently awarded. The importance of his physicochemical work and its results were set forth in an editorial in The Journal of March 5.] He here discusses Ehrlich's recent study of diphtheria toxin, published in the *Berliner klinische Wochenschrift*, Nos. 35 to 37, disagreeing with him on certain points, but extolling as "one of the many things for which Ehrlich is most to be praised, that he has always proclaimed that (physical and) chemical processes are concerned in the reactions between toxins and antitoxins as between bodies and antibodies in general." He comments with especial appreciation on Ehrlich's remark that scientific research should restrict itself first to the simplest explanatory possibilities, and not call on more complicated ones until the simple ones have been shown to be inadequate.

60. **Tuberculosis Dispensary at** *Berlin.*—Jacob reviews the work accomplished by this new institution during the four months since its foundation. It has already proved its great usefulness as a link in the chain of compulsory insurance of the working classes against sickness. Tuberculous subjects are diagnosed, watched over, contagion of others guarded against, and more favorable surroundings provided. The dispensary aims to do nothing which it is the right and duty of others to do, but to supplement and complete wherever the aid of others proves inadequate. Various charitable organizations co-operate with it.

62. **Paraffin Prothesis in Ozena.**—Fliess reports 12 cases of ozena treated by local injection of hard paraffin. The results far surpassed those obtained by other modes of treatment, and most of the patients are completely cured and the others so improved as to amount to a practical cure. All had been for years treated by various specialists with the usual insuccess. During the total of 32 injections no disturbances were noted in any instance. No mishaps have been reported from the use of hard paraffin.

Centralblatt f. Chirurgie, Leipsic.

Last indexed page 621.

63 (XXXI, No. 5.) *Ein sicheres Verfahren der Jejunostomie. G. Kelling (Dresden).
64 *Cholecystenterostomie mit Bildung eines künstlichen Gallenganges. H. Krukenberg.
65 (No. 6.) *Avoidance of Pneumothorax in Operations in the Thorax. F. Sauerbruch.—Ueber die Ausschaltung der schädlichen Wirkung des Pneumothorax bei intrathorakalen Operationen.
66 (No. 7.) Die Hepato-Cholangio-Enterostomie. H. Kehr (Halberstadt). One case.
67 Decapsulation of the Kidneys. G. M. Edebohls (New York).—Nierendekapsulation, Nephrokapsektomie (Edebohls) und Nephrolysis (Rovsing).
68 *Ueber eine Modifikation der aseptischen Katheter-Einführung. J. Swiatecki.
69 (No. 8.) *Fall von Prostatotomia infrapubica. L. Heusner (Barmen).
70 Prevention of Entrance of Air During Intravenous Infusion. Ejnar Nyrop (Copenhagen).—Beschreibung eines zur Luftaufsammlung bei der Pneumaturie hergestellten Glasballons samt einem ferneren Vorschlage zur Vermeidung von Lufteintritt bei intravenösen Infusionen, usw.
71 (No. 9.) *Trepanation unter Lokal-Anesthesie und Trennung der Galea ohne Blutung. L. Heidenhain (Worms).
72 Zur operativen Behandlung der habituellen Luxation der Kniescheibe. Ali Krogius (Copenhagen).

63. **Improved Jejunostomy.**—Kelling produces a jejunum fistula which closes water-tight, even during coughing, etc. He has applied it on 8 patients with highly satisfactory results, the survival being for several months, the longest being nine months and ten days. There was an inoperable cancer in each case, and under these circumstances the simplicity of the technic is not so important as the water-tight closure of the opening, and this was unfailingly realized. The special feature of the technic is that the projecting end of the stump of the intestine is tied and turned back inside, thus invaginated for about 5 cm. The drain is a 6 mm. Nélaton catheter, which passes through a small opening near the tip of the invaginatum. The upper, folding over end of the stump does not project beyond the inner layer of the abdominal wall, where it is sutured tight around the catheter.

64. **Artificial Biliary Passage.**—Krukenberg's patient was a debilitated man of 78, with severe icterus, commencing cholemia and other signs of cholelithiasis. The gall bladder was found filled with gravel and thick bile. It was evacuated, twisted 270 degrees on its longitudinal axis and thus transformed into a spirally wound passage similar to a normal cystic duct. It was fastened in this position with six fine sutures, and the fundus was implanted in the jejunum in such a way that it projected like a tuft into the lumen of the latter. The fever dropped at once, and in less than two weeks the icterus and liver tumor had entirely vanished and the patient has been freed from disturbances since the operation, which was undertaken last September. The prompt and durable benefit indicates that this mode of intervention is less serious than an operation on the common bile duct would have been. It is possible only when the gall bladder is large and elastic enough to be thus transplanted, and this can be determined beforehand.

65. **To Eliminate Pneumothorax in Intrathoracic Operations.**—Sauerbruch has constructed an air chamber in which operations may be performed on the thorax without interfering with respiration. It has proved perfectly successful on animals, and has allowed all kinds of operations to be performed inside the thorax without fear of pneumothorax. It aims to exclude entirely all atmospheric pressure during the intervention. When the atmospheric pressure is eliminated, the lungs do not collapse when they are opened to the air and the respiration proceeds normally. He found that he could open the thorax on both sides and even remove all the sternum and ribs, leaving merely small stumps, and all without interfering with the normal respiration of the animal, which continued unmodified as long as the atmospheric pressure was eliminated from its environment. The chamber which he has constructed is air-tight and large enough to admit the operator and assistant, the operating table and the body of the animal. The animal's head projects outside, a rubber cuff fitting tight around his neck. The air-pressure is regulated by an air-pump, while a valve in the wall allows air to enter just enough to maintain a constant negative pressure in the chamber. The operators did not experience any ill effects from remaining in this chamber. Mikulicz and an assistant worked in it one day for an hour without discomfort, except from the warmth and moisture, which would be obviated by construction of a larger chamber. The one now in use is about 40x45x55 inches. It is made of boards, lined with tin, soldered at the corners, the entire top of glass. Sauerbruch is now preparing a monograph on the physiologic principles of this exclusion of atmospheric pressure as an aid for operating on the thorax, and intends to report in it his clinical experience to date of writing.

68. *Aseptic Introduction of Catheter.*—Swiatecki holds the catheter by the handle and lubricates it with a pair of long gynecologic forceps. He then seizes the end of the catheter near the tip, with the points of the catheter blades, and holds both forceps and the large end of the catheter in the right hand. The catheter thus is bent in the shape of a C, and when the forceps holds it near the tip the outline is like that of a D. This gives sufficient purchase on the catheter tip for it to be easily inserted in the meatus with the right hand alone, and the fingers have not touched the catheter at any point except near the handle where contamination does no harm.

69. **Infrapubic Prostatotomy.**—Heusner resected the lower half of the symphysis and the descending rami of the pubis to obtain access to the prostate in the case described. He has since established by experiments on the cadaver that it is possible to detach the prostate from the pubis and draw it entirely down below the pubis without resection of bone.

71. **Trephining Under Local Anesthesia.**—Heidenhain's experience with 2 cases in which trephining was performed without general anesthesia or any loss of blood, has been so favorable that he advocates his technic as an improvement over previous methods. He believes that even major operations on the skull can be safely undertaken with the combination of cocain and adrenalin which Braun recommends. To prevent bleeding from the galea Heidenhain commends his practice of taking a series of overlapping stitches with a single thread, on each side of the proposed incision. By pulling the ends of the thread the tissues are compressed and no bleeding can occur after the incision is made. If a little blood still escapes a ligature can be applied here and there. It is important to leave these threads in place and not remove them for eight to ten days. The needle should be semicircular, medium sized, and scrape along the bone as far as possible for each stitch. They should overlap half the length of the preceding stitch.

Centralblatt f. Gynäkologie, Leipsic.

Last indexed page 685.

73 (XXVIII, No. 5.) Vagitus uterinus. C. J. Bucura. Ibid A. Sippel.
74 Eklampsie und vaginale Sectio cesarea. Westphal (Stolp).
75 (No. 6.) Ueber Verdoppelung der Vagina bei einfachem Uterus (double vagina with single uterus). F. Marchand (Leipsic).
76 Detached Head in Parametrium. C. Weber.—Ein abgerissener Kopf im Parametrium.
77 *Ueber popular-wissenschaftliche Bücher. G. Bruckhard (Würzburg).
78 (No. 7.) Eine Berichtigung zur Cervixfrage. H. Bayer.
79 Zur Kasuistik der Bauchhöhlenschwangerschaft (abdominal pregnancy). O. Nebesky (Innsbruck).
80 Male or Female? T. Landau.—Mann oder Weib? Reply to Neugebauer.
81 *Hyperemesis gravidarum. Oehlschlager (Dantsic).—Gegen das Erbrechen Schwangerer.
82 Ruptur der Symphysis während der Geburt (intrapartum). J. Backer (Budapest).
83 (No. 8.) Treatment of Fresh Laceration of Perineum. G. Vogel.
84 Ibid. J. Eversmann (Bonn).
85 Is Edema of the Vulva a Natural Protection of the Perineum or Does It Increase Danger of Laceration? R. v. Budberg (Dorpat).—Ist das Oedem der Vulva während der Geburt ein nat. Schutzmittel für den Damm oder steigert es gar die Gefahr des Zerreissens?
86 *Zur Hefetherapie der weiblichen Gonorrhoe (yeast treatment). O. Abraham.

87 *Accident During Attempt at Lumbar Puncture. Mathes (Graz).—Ein übler Zufall nach einem Lumbalpunktionsversuch.
88 Zur Frage der Beseitigung postoperativer Blasen-Scheidenfisteln (vesicovaginal fistulas). H. Bertram (Meiningen).
89 (No. 9.) *Das Eserin in der Behandlung der postoperativen Darm-Paralyse. G. Arndt (Posen).
90 Zur Technik der Wertheim'schen Carcinom-Operation. M. Walthard (Berne).
91 *Extramedian Symphysiotomy. L. Gigli.—Lateralschnitt des Beckens.
92 Die Gonorrhoe der para-urethralen Gange des Weibes (in the female). E. Pollak.

77. **Popular Science.**—Burckhard quotes extensively from two books on household medicine by a practicing woman physician in Dresden, to show the dangers from such popularly written works, evidencing such superficial knowledge, prejudice and lack of common sense. Among other points which he cites is its warning against mercury in syphilis, and its recommendation of a method of treating peritonitis which would be practically murder if carried out. He remarks that the most ardent advocate of opening the medical career to women would be silenced by a reading of this work, which is the production of a graduate woman physician whose name and titles he gives in detail. He also quotes from another work by a "nature doctor," which is now in its three hundredth thousand, to the effect that cancer can be cured by the non-surgical measures advocated. The sale of this book has been prohibited in Austria, but it is sold largely elsewhere.

81. **Hyperemesis Gravidarum.**—Oehlschlager ascribes the vomiting in pregnancy to an oversecretion of gastric juice in the stomach, induced by irritation of the innervation from the unaccustomed movements of the uterus substance. For fifty years he has been treating such patients by correcting the hyperacidity with bicarbonate and soothing the nerves with strychnin. Every two or three hours he gives a tablespoonful of the following mixture, and has never had a case that failed to respond promptly. His formula is 8 gm. sodium bicarbonate, 3 gm. tincture strychniæ; 150 gm. distilled water and 30 gm. syr. cinnam. If he should happen to encounter a case rebellious to this medication he would induce abortion by injection of 3 gm. tincture of iodin in the uterus. He has long been convinced of the benefits of intrauterine injections of tincture of iodin in case of general sepsis of the uterus, such as occurs after delivery and operations on the uterus.

86. **Yeast in Treatment of Gonorrhea in the Female.**—Abraham comments on the harmonious results of his bacteriologic and clinical experiences with yeast and gonococcus infection.

87. **Possible Danger from Lumbar Puncture.**—Mathes' patient was a woman of 52, who was being operated on for carcinoma of the portio. The uterus was removed *in toto* according to Schuchardt. An attempt to induce spinal anesthesia was unsuccessful. The trocar entered deep enough, but no fluid escaped, except a drop of blood. The next day symptoms of meningitis developed and progressed to a fatal termination in five days. The necropsy revealed an aneurism of the left vertebral artery, with compression of the brain and medulla. The aneurism had perforated, and there had been much hemorrhage. The question then arose as to whether the lumbar puncture might not have contributed to the rupture of the aneurism, and if any fluid had been evacuated this might have seemed probable, but the evidence was against it in this case. It suggests, however, that lumbar puncture under similar circumstances in another case might possibly entail the rupture of an aneurism.

89. **Eserin in Post-Operative Paralysis of Intestines.**—Arndt describes 5 cases out of a large experience to demonstrate the life-saving efficacy of eserin in these circumstances. He injects 1 mg. of physostigmin (eserin) salicylate, an amount which is perfectly tolerated even by debilitated patients. He never had occasion to give more than 2 mg. in the twenty-four hours. When it does not prove promptly effective he supplements it by repeated lavage of the stomach, as he attributes the persistence of the atony to distension of the stomach, which is particularly liable to follow operations in the Trendelenburg position, and which is not influenced by the eserin.

91. **Extramedian Symphysiotomy.**—*Gigli's extramedian symphysiotomy* has been described in these columns, xl, page 133. In this address, delivered at the Italian Congress of Gynecology last October, he reviews the experiences to date with it. Fifteen women have thus been operated on, and a number were demonstrated to show the complete restitutio ad integrum, with a slightly enlarged pelvis, allowing normal deliveries thereafter.

Deutsche medicinische Wochenschrift, Berlin and Leipsic.

93 (XXX, No. 9.) *Tetanus from Shot Wounds. G. Schmidt.—Schrotschuss und Wundstarrkrampf.
94 Choked Disc After Contusion of Skull. J. Bachauer (Augsburg).—Ueber Stauungspapille nach Schädelkontusion.
95 Volar Sound. P. Hampeln (Riga).—Ueber den Volarton.
96 Beitrag zur Kenntnis der Bindungs-Verhältnisse bei der Vereinigung von Diphtheriegift und Antiserum. von Dungern (Freiburg). (Concluded from No. 8.)
97 *Zur Hetol-Therapie der Tuberkulose. G. Brasch (Berlin).
98 Lichen progenitalis. J. Broers (Hague). One case.
99 *Ueber den Paratyphus. P. Clemens (Freiburg). (Commenced in No. 8.) Critical review of the literature.
100 Hygienisches aus Kolberg. P. Fuchs.
101 *Ueber die sanitären Verhältnisse auf der Insel Formosa (Japan). H. Yamaguchi (ex-president of medical college in Formosa).
102 Discussion on True and False Stigmata of Hysteria. From society report.
103 (No. 10.) Zur Analyse des unregelmässigen Pulses. P. Reckzeh (Berlin).
104 *Ueber die Verwendbarkeit des Jousset'schen Inoscopie. E. Körmöczi and K. Jassniger (Budapest).
105 *3 Fälle von Tetanus. Tourneau (Göttingen).
106 Ueber die Variabilität der Gonokokken. F. Schanz (Dresden).
107 Ueber einen Antikörper gegen Steapsin-Solution. A. Schütze. (Concluded.)
108 Puerperale Sepsis behandelt mit Aronson's Antistreptokokkenserum. Grochtmann.
109 *Ueber Laktagol. R. Mond (Hamburg).
110 *Anesthesin bei See-Krankheit. L. Schliep (Hamburg).
111 Discussion on Case of Acute Cocain Poisoning Mentioned on Page 863. From society report.

*93. **Shot Wounds and Tetanus.**—Schmidt asks* why wounds from shot are not more often followed by tetanus, as it has been demonstrated that the cartridges almost invariably contain tetanus bacilli. He answers his own question by pointing out that when the missile is fired from a distance the accompanying paper is usually lost on the way, and wounds causing much laceration of tissues from nearby explosions are usually treated in such a way that the tetanus bacillus does not find conditions favorable to its growth. There is peculiar danger from the small wound caused by a particle of shot fired near the part and causing what is supposed to be an insignificant wound. He has observed 2 such cases. A small pocket or bicycler's pistol, loaded with fine shot, went off in the subject's hand, and one piece of the shot made a small wound in the forearm. It rapidly healed, but after a few days symptoms of inflammation developed in the depths and rapidly fatal tetanus followed in both instances. A scrap of cartridge paper was found in the wound in each case. Similar cartridges bought in the market were found almost invariably to contain tetanus germs, as also the raw material obtained from the factory.

97. **Cinnamic Acid in Tuberculosis.**—Brasch has treated 52 patients with Landerer's hetol (cinnamic acid) during the last four years, and his experience has been extremely favorable as he describes in detail. He has made about six thousand injections of the hetol and has never observed the slightest disturbance from its use.

99. **Paratyphoid Fever.**—Clemens reviews sixty articles that have been published bearing on this subject including the American contributions, and draws from them the clinical picture of paratyphoid infection. There is no characteristic feature to differentiate it clinically from typhoid, although cases of apparent typhoid with atypical intestinal symptoms should suggest paratyphoid, and possibly also hemorrhagic cutaneous affections, the dark macular spots differing from the roseola of typhoid.

101. **Sanitary Conditions on Island of Formosa.**—Yamaguchi relates that since Japan acquired this island at the close of the war with China in 1895, numerous sanitary reforms have been instituted. She first had to root out the bands of robbers and pirates and gain a firm political hold over the native races and the large Chinese population. The next step was

to combat the opium evil. The abuse of opium has extended enormously throughout the entire Chinese empire during the last sixty or seventy years. Although the Chinese government has been anxious to check it by legal restrictions, it has never been able to accomplish this as the forbidden drug is imported from England, and the evil is perpetually fostered in this way. The number of persons addicted to opium in the Chinese provinces is about as large as the number of persons in Europe who smoke tobacco. Poor and rich alike are addicted to opium and in the houses of the well-to-do it is served regularly after dinner. As the price is somewhat high the rich use it more than the poor. The Japanese government was, therefore, confronted with a deeply rooted evil, but the happy suggestion was adopted to officially class opium smokers as sick persons, and explicitly designate them as patients. Opium smoking was forbidden to minors, and adults have to obtain an official permit before they can purchase any of the drug. The government also made the production of opium a state monopoly. By these means it was hoped to gradually reduce the number of opium smokers, and the number did drop within a year from the 165,753 official permits issued in 1900 to 156,366 in 1901. Opium used to be prescribed by the local physicians as a panacea against nearly all affections. The Japanese government has sought to counteract this by supplying trained physicians. These physicians reside in districts two or three miles apart. They receive good salaries and, besides their private practice, have charge of medicolegal and sanitary affairs in their district, as well as the care of the poor. The opium smokers must obtain their permits from this district physician, and by so doing constitute themselves his patients and are regarded and treated as patients. There are more than 1,200 Chinese doctors practicing on the island, and a few English missionaries with very primitive medical knowledge. A state examination is now required of all newcomers. There are already 157 trained Japanese physicians on the island, with 11 hospitals erected by the government, the principal one being almost luxuriously fitted up at a cost of a quarter of a million dollars, with trained nurses and attendants. A medical school has been founded in which the natives are educated at the expense of the state after having taken a Japanese preparatory course and passed an official examination. Special attention is paid to experimental work, the students being required to control and confirm the facts taught them in physiology and bacteriology. Yamaguchi adds that Chinese physicians have not the remotest idea of experimental pathology. At first it was difficult to procure anatomic material as the Chinese ancestor worship rendered them superstitious about the dead, and the rumor was spread abroad that the Japanese wanted to get the hearts of dead natives to deliver them to the devil. Years of efforts were required before this tradition could be uprooted, but now there is no lack of anatomic material, utilizing the bodies of criminals and paupers. The Japanese language is taught from the primary schools upward, and the lectures are in this language. The elements of English, German and Latin are also taught in the college to aid in the understanding of technical terms. The graduating class in 1903 numbered 15. A number of students from southern China are enrolled in its membership, as the enlightenment introduced by the Japanese is spreading to the adjacent mainland. Yamaguchi adds in conclusion that sewage and drinking water problems have also been met and solved, harbors built, etc., the drug and midwifery trades reorganized, and that the Japanese government has thus sown all over the land a rich seed from which it hopes to reap a fine harvest in the time to come.

104. **Inoscopy.**—This method of detecting tubercle bacilli in effusions was described in The Journal, xl, page 546. Fourteen cases were tested in the research here described. The signs of tuberculosis were unmistakable and the inoscopy was applied to ascertain its corroborative value. The results were positive in only 4 out of 12 cases and were negative in the 2 cases of ascites.

105. **Antitoxin Treatment of Tetanus.**—Tourneau's experience with the 3 cases reported has convinced him that tetanus antitoxin has no favorable influence when not injected until after the first symptoms of tetanus have developed.

109. **Lactagol for Promoting Lacteal Secretion.**—Mond ordered the preparation of cotton seeds, known as lactagol, for a number of nursing women and found that the secretion of milk materially increased under its influence. His results confirm those mentioned in abstract 80, page 744. The material to date has not been very large, but the results have been so invariably excellent that the writers hasten to advocate the general use of cotton-seed preparations. In the form of oil cake it has thoroughly established its value in dairies.

110. *Anesthesin in Seasickness.*—Schliep has been the medical officer on a ship making transatlantic and other trips, and has had frequent opportunity to appreciate the efficacy of anesthesin as a means for preventing seasickness. Passengers who had been seasick on previous voyages were given three or four powders of anesthesin, each .5 gm., as a prophylactic measure during the first hours after the ship sails, repeating these doses for a few days, according to circumstances. The majority of persons thus treated showed no symptoms of seasickness during the entire trip. It also exerted an unmistakably favorable action when its administration was not commenced until the first manifestations of seasickness developed, the loss of appetite and nausea, but after vomiting was once established and the seasickness well under way the anesthesin was unable to arrest it. Patients at this stage are apt to be too apathetic to be induced to take anything. As anesthesin is comparatively innocent, 2 and 3 gm. can be given during the day with impunity. Its efficacy as a preventive of seasickness confirms what von Noorden has asserted in regard to its value in cases of ulcer of the stomach, nervous dyspepsia, vomitus gravidarum, hyperesthesia of the stomach, etc.

Münchener medicinische Wochenschrift, Munich.

112 (L, No. 9.) Ueber das Vorkommen von Levulose im Fruchtwasser (liquor amnii). A. Gürber and Grünbaum (Würzburg).
113 Bakteriologische Untersuchungen über Masern-Conjunctivitis (in measles). E. Schottelius (Freiburg).
114 Das Schleimhaut-Exanthem der Masern (mucosæ in measles). O. Rudel.
115 *Die subkutane Eiweissernährung (albumin feeding). Credé (Dresden).
116 Ueber congenitalen, halb-seitigen Riesenwuchs (unilateral giant growth). H. Bruning.
117 Cephal-Hematom älterer Kinder (of older children). H. Friedemann (Leipsic).
118 Ueber die Beurteilung der Unterbrecher (interrupters). F. Dessauer.
119 Egypten und Tuberkulose. von Becker (Cairo).
120 Ein merkwürdige centrale Störung der Geschmacksempfindung (taste). G. Köster. (Commenced in No. 8.)
121 Aims of the New York German Medical Society. Carl Beck.—Ueber erstrebenswerte Ziele der Deutschen medicinischen Gesellschaft der Stadt N. Y.

115. **Subcutaneous Albumin Feeding.**—Credé has been for years trying to find a substance that could be utilized for keeping up the strength of patients after operations which forbid temporarily the use of the stomach. He thinks he has accomplished this with a preparation of meat which contains 95 per cent. of easily soluble albumin in a readily assimilated form, with traces of iron, and .2 per cent. salt. The albumin in this preparation, which he calls kalodol, is in a form resembling that of the albumin in the circulation and is assimilated without effort. A person weighing about 125 pounds requires in the neighborhood of 80 gm. albumin a day, but only about a third of this amount when sick, not more than 27 gm. Four subcutaneous injections of the kalodol during the day supply about 20 gm. of albumin, which can be supplemented by more given by rectal injection, absorption of the kalodol from the rectum being remarkably rapid and complete. He has found it a peculiarly beneficial and almost life-saving measure to add 50 gm. of a 10 per cent. kalodol solution to 500 gm. of physiologic solution when the latter was given subcutaneously. By injecting where the skin lies loose on the fascia, injecting under low pressure and delicately stroking away the accumulating fluid, it is possible to avoid any reaction, especially when the amount is injected at two or three separate points. The kalodol is absorbed so rapidly in the rectum that several enemata can be given during the day. It leaves no residue to putrefy in the bowel.

Virchow's Archiv, Berlin.

Last indexed page 688.

122 (CLXXV, No. 1.) Islands in the Gastric Mucosa Similar in Structure to the Zone of the Cardial Glands and Region of the Fundus Glands, and the Glands in the Upper Segments of the Esophagus Similar to the Lower, Esophageal Cardial Glands. H. Schridde.—Ueber Magenschleimhaut-Inseln vom Bau der Cardialdrüsenzone und Fundusdrüsenregion und den unteren, oesophagealen Cardialdrüsen gleichende Drüsen im obersten Oesophagusabschnitte. Found in 70 per cent. of 30 cadavers.
123 The So-called Upper Cardial Glands of the Esophagus. A. Ruckert.—Ueber die so-gen. Cardialdrüsen des Oesophagus.
124 Die Regeneration des Knorpelgewebes (of cartilage tissue). M. Matsuoka.
125 Study of "Granular Pathology." H. Marx.—Ueber vitale und supravitale Granulafärbungen bei Aetz-Keratitis.
126 Zur Pathologie des elastischen Gewebes der Milz (tissue of spleen). B. Fischer.
127 *[illegible]. Tischner (Rostock).—Vergleichende [illegible]thologie der Leber.
128 [illegible] und Degeneration. G. von Bunge (Basle).
129 Der Ursprung der Plasma-Cellen. L. Ehrlich (Hamburg).
130 Development of Cicatrix. R. Minervini (Genoa).—Ueber die Ausbildung der Narben.
131 Processes in Salivary Glands After Obstruction of Outlets. O. Laugemak (Rostock).—Zur Kenntnis der Vorgänge in den Speicheldrüsen nach Verlegung ihres Ausführungsganges.
132 Ueber Hidradenoma und Adenoma hidradenoides. L. Pick.
133 Pachymeningitis carcinomatosa hemorrhagica interna productiva mit Colibacillosis agonalis. K. Westenhoeffer. One case.

127. **Pathology of the Liver.**—Tischner induced pathologic conditions in the liver by ligating the hepatic artery, occluding the common duct and by intoxication with phosphorus. His researches were conducted on a large number of rabbits. The extensive monograph is illustrated and the findings carefully analyzed.

128. **Alcoholism and Degeneration.**—Bunge has taken the trouble to send question blanks to a number of physicians practicing in Switzerland, Germany, Austria and Russia, Hungary and Turkey, inquiring in regard to the connection between alcoholism in the father and the nursing capacity of the daughters. His comprehensive statistics show that chronic alcohol poisoning in the fathers has a great influence on the daughters in this respect, and also on the resistance of the children to tuberculosis and nervous affections. He received 1,629 carefully filled out blanks in reply. In the total number 1,110 women were unable to nurse their children, and in the 716 cases in which the mother's capacity was mentioned he found that the mother likewise had been unable to nurse her children in 60.8 per cent. With a single exception, the 422 nursing women had mothers who had nursed their children. These figures show the marked hereditary character of the nursing capacity. He classified the statistics in many different ways, but all show the immense influence of alcoholism on the children. One table states that 24.2 per cent. of the children of 103 hard drinkers presented some nervous or mental affection. Tuberculosis was observed in 13.6 of these 103 hard drinkers and in 29.3 per cent. of their children. The proportion of carious teeth was also very high in the children of drinkers. He publishes his question blank and is anxious to collect further statistics in regard to the influence of alcoholism on degeneration.

Gazzetta degli Ospedali, Milan.

Last indexed page 624.

134 (XXV, No. 7.) *Sulla presenza del bacillo tubercolare nelle urine. V. Maragliano.
135 Su alcune reazioni emolitiche nel siero di sangue dei nefritici. F. Micheli.
136 La cefalopina e l'organoterapia cerebrale. M. Sciallero. See page 866 and also No. 19.
137 Contributo allo studio delle malattie funzionali del cuore. V. Ingraldi.
138 *Profilassi [illegible] A. Mori.
139 Delle [illegible] A. Ricciardelli.
140 (No. [illegible] G. Reale.
141 Sugli [illegible] C. Ortali.
142 L'emoantitossina preparata per la cura e la profilassi della tuberculosi. Figari. See page 866 and also Nos. 13, 16 and 19.
143 Contributo alla chirurgia dello stomaco (10 gastroenterostomie). F. Fabris.
144 Un altro caso di cirrosi epatica con ernia ombelicale curato chirurgicamente. A. Mori. Recovery.
145 (No. 11.) *Sulla modalita di praticare la vaccinazione antitubercolare. E. Maragliano (Genoa).
146 (No. 13.) Sulla origine del fremito e di un tono diastolico sulle medie e picco e arterie nell' insufficienza aortica. G. Fazio.
147 Il valore uroclinico dell' indicano. G. Campanella.
148 Considerazioni sulla fisiologia del corpo tiroide. G. Migliacci.
149 Contributo alla sieroterapia anticarbonchosa Sclavo (anthrax). G. Recchi.
150 Le iniziont di bromuro di calcio nell'epilepsia. T. Montagnini. Negative.
151 Ascaridiasi a forma tifoidea. E. Ligorio.
152 (No. 16.) Sindrome di Brown-Sequard. O. de Lollis.
153 Sulla malattia del Tomaselli. R. Festa.
154 Sterilizzazione del catgut col metodo di Claudius. N. Giannettasio. Favorable report. Ibid. C. Menoni.
155 (No. 19.) Sopra un caso di leukemia subacuta. G. Curlo.
156 Il nucleone nei centri nervosi. E. Cavazzani.
157 Febbre gastrointestinale della seconda infanzia. V. Trischitta.
158 Sul comportamento del peritoneo verso gli agenti esterni in alcune lesioni violente dell' addome. G. Sulli.
159 (No. 22.) Intorno ad una sostanza fosforata nel vitreo e nell' acqueo. E. Cavazzani (Ferrara).
160 Sulla febbre tifoidea. N. Muglia.
161 Caso di corea isteroepilettica. G. Morelli.
162 (No. 25.) *Dell'emostasi nella chirurgica epatica e nuovo contributo col cloruro dell'adrenalina. G. Gualdrini.
163 Il dolore appendicolare nell polmonite del bambini (pneumonia in children). P. Cavatorti.
164 *Contributo alla istologia patologica del cordone ombelicale nella sifilide. G. Franceschini.

134. **Tubercle Bacilli in Urine.**—Maragliano's findings were negative in 12 cases. The tubercular lesions were restricted to the respiratory organs.

138. **Prophylaxis of Malaria.**—Mori prefers euchinin to quinin and treated a party of 74 persons with it during the malarial season last year, giving 25 to 50 cg. before breakfast and dinner. Only 6 showed evidences of malaria and 2 of this number had abandoned the use of the euchinin for a week before the first manifestations. The infection yielded rapidly to resumption of the drug. Euchinin does not have the bitter taste of quinin, while it is readily assimilated and has no by-effects even after prolonged dosage. He thinks that possibly the euchinin has an agglutinating action on the erythrocytes.

140. **Vessel Spasms.**—Reale has observed a number of cases of spasm of the vessels and describes two typical examples, due to alimentary or autointoxication.

145. **Vaccination Against Tuberculosis.**—Maragliano has vaccinated a number of children against tuberculosis, the results constantly controlled by experiments on animals. The blood serum gradually acquired agglutinating power up to 1/100, the same as in the animals, and intravenous injection of the animals with virulent cultures of tubercle bacilli demonstrated that they were refractory, completely immune against tubercle infection. He thinks the probabilities are all in favor of the assumption that the children have been rendered similarly immune although confirmation of the test by inoculation is of course out of the question. He proceeds as for smallpox vaccination, and there is a slight febrile reaction the same as in the latter. By what he calls the "progressive" technic he commences with passive and goes on to active immunization. He first injects immunizing substances derived from the blood of immunized animals. This stage is followed by injections of these same substances plus substances derived from the bodies of killed bacilli, a material absolutely incapable of inducing infection. The third and final stage is the injection of products of the tubercle bacilli, also harmless. After a period of three to four months the serum has acquired antitoxic, antibacterial and agglutinating properties. The controls treated step by step in the same way acquire these same properties and prove completely immune to infection with virulent tubercle bacilli. The dead bodies of the bacilli are the chief factor in this vaccination, and the aim is to induce a focus of tubercular inflammation at the periphery entirely free from live tubercle bacilli. From this focus emanate the influences which induce the antitoxic, antibacterial and agglutinating properties, the reaction of defense on the part of the organism. This insures a true and special vaccination. He makes the injection in the arm as for smallpox vaccination. A small amicrobian abscess develops which is slow in healing, sometimes persisting for three or four months before completely healing. His experiences with animals have demonstrated beyond question, he believes, that it is possible to confer immunity by this simple technic. Maragliano adds that his research in this line preceded those of others by six years. Italy also took the lead in the administration of antitoxins by the mouth, as also in vaccinating man against tuber-

culosis. Elsewhere the question is still in the phase of mere hypothesis.

162. **Surgery of the Liver.**—In this comprehensive study of surgical intervention on the liver, Gualdrini emphasizes the value of adrenalin as an adjuvant to tamponing, patching with a piece of omentum or suturing. Injected into the parenchyma it serves to prevent hemorrhage during resection, especially when supplemented by ligature of the larger vessels.

164. **Umbilical Cord in Syphilitic Infants.**—Franceschini extols the advantages derived from histologic examination of the umbilical cord in dubious cases. It may elucidate symptoms and indicate the course of treatment necessary for mother and infant. The syphilitic lesions in the cord are usually restricted to the vessels and these syphilids may precede by months and years any other manifestation of the infection.

Medicinskoe Obozryenie, Moscow.

Last indexed page 279.

165 (XL, No. 14.) K etiologie appendicita v zavisimosti ot postoronnikh tyel-slutchai appendicita obuslovlennii prisutstviem v pridatkye ostritz. A. E. Kablukoff.
166 Study of 2 Cases of Cholelithiasis. P. A. Gertzen.—O zheltchnokamennoi bolyezni.
167 Differentiation and Treatment of Cholelithiasis. T. I. Bereskin.—Ibid.
168 K patolog, anatomie ostrago sapa (of acute glanders). M. O. Guberman.
169 (No. 15.) K patologii ostrago poliomielita vzroslykh (poliomyelitis anterior acuta). V. A. Muratoff.
170 Bone Sound Conduction. A. Ivanoff.—O kostnoi zvukoprovodimosti.
171 Deformed Ears. T. T. Zasyedateleff.—Udostva naruzhnago ukha. Two cases.
172 *Treatment of Syphilis by Subcutaneous Injections of Hermophenyl. M. A. Tchlenoff.—O lyetchenii syphilisa, etc.
173 Hemorrhagic Myelitis of Spinal Cord and Medulla. V. I. *Shamshin.—Slutchai hemorrhagitcheskago mielita spinnogo i prodolgovatago mozga.*
174 (No. 16.) K kasuistik syphilisa serdtsa (of the heart). V. O. Boitke. One case.
175 K kasuistikye syphilisa pleury i legkikh (lungs). *Y. O. Halpern.*
176 *Case of Pseudo-chylous Pleuritis, Hydrothorax and Ascites. V. A. Zagumenny.—Slutchai pseudozhileznago pleurita, etc.
177 (No. 17.) *Surgery in Trauma of Liver. V. N. Rozanoff.—Chirurg. vmyeshatelstvo pri traumakh petcheni.
178 *Clinical Importance of the Revolving Chair and Table for the Differentiation of Certain Nervous Affections. S. T. von Stein.—Klin. znatchenie centrofugi dlya rasposnavaniya nyekotorykh nervnykh zabolyevanii.
179 K kasuistikye skryto-protekayushtchikh form razmyatcheniya mozzhetchka (softening of cerebellum). V. F. Velyamovitch.
180 Another Case of Noma Cured with Pyoctanin. D. T. Akhvledian.—Novii slutchai izletcheniya vodyanogo raka cinim pioktaninom.

172. **Hermophenyl in Syphilis.**—Tchlenoff reports 33 cases of syphilis treated by subcutaneous injections of hermophenyl. It had an unmistakable influence, but less decided than that of mercury, on condylomatous lesions. The local traumatism of the injections is much less than that observed with mercury, and consequently it may be indicated for this reason in certain cases of syphilis.

176. **Pseudo-Chylous Pleuritis.**—The effusion in this case of pleuritis, hydrothorax and ascites was chyliform, but contained lecithin and also cholesterin. The patient was a probable syphilitic.

177. **Surgery of Liver.**—In the 4 cases described all but one of the patients recovered after the surgical intervention on the injured liver. In respect to the diagnosis of such injuries Rozanoff comments that it is rather difficult when there is no external wound to call attention to the special organ injured in the trauma. In his cases the rigidity of the rectus muscles was a striking sign, particularly demonstrative in one case in which rigidity of the left rectus was almost the only indication at first of serious trouble within. Operative intervention is imperative owing to the tendency to severe hemorrhage of wounds in the liver. Shock indicating internal hemorrhage demands immediate operation and hemostasis *in loco.*

178. **Differentiation of Nervous Affections with the "Centrifuge."**—Stein gives illustrations of the "centrifuge" or revolving table and the goniometer or angle-measure which he believes open new horizons for the differentiation of certain nervous affections. The centrifuge is somewhat like an individual merry-go-round. The findings of the tests reveal the greater or less ability of the subject to hold himself in a vertical position. He gives 22 illustrations of the findings on two patients, with 51 various views of the different attitudes assumed by the subjects before, during and after the tests. He is confident that both *otiatrists and neuropathologists* will find this means of investigation indispensable when it is once introduced. The subject can be whirled from left to right or the reverse, sitting or reclining, the eyes open or shut, and the findings compared with the normal standards which von Stein has carefully ascertained.

Books Received.

Acknowledgment of all books received will be made in this column, and this will be deemed by us a full equivalent to those sending them. A selection from these volumes will be made for review, as dictated by their merits, or in the interests of our readers.

A SYSTEM OF PRACTICAL SURGERY. By Drs. E. von Bergmann of Berlin, P von Bruns of Tübingen and J. von Mikulicz of Breslau. Edited by William T. Bull, M.D., *Professor of Surgery in the College of Physicians and Surgeons* (Columbia University), New York. To be Complete in Five Imperial Octavo Volumes, Containing Over 4,000 Pages, 1,600 Engravings and 110 Full-Page Plates in Colors and Monochrome. Sold by Subscription Only. Vol. I—Surgery of the Head. Translated and Edited by William T. Bull, M.D., and Walton Martin, M.D. Cloth. Pp. 936. Price $6.00. New York and Philadelphia: Lea Brothers & Co. 1904.

PROGRESSIVE MEDICINE, Vol. I, March, 1904. A Quarterly Digest of Advances, Discoveries and Improvements in the Medical and Surgical Sciences. Edited by Hobart Amory Hare, M.D., Professor of Therapeutics and Materia Medica in the Jefferson Medical College of Philadelphia. Octavo. Pp. 337. Seven Illustrations. Per Annum, in Four Cloth-bound Volumes, $9.00. In Paper Binding, $6.00. Philadelphia and New York: Lea Brothers & Co.

REPORTS ON BOVINE TUBERCULOSIS AND PUBLIC HEALTH. By D. E. Salmon, D.V.M., Chairman of the Committee on Animal Diseases and Animal Food of the American Public Health Association. Paper. Pp. 61. U. S. Department of Agriculture. Washington: Government Printing Office. 1904.

STUDIES UPON THE KEEPING QUALITY OF BUTTER. 1—CANNED BUTTER. By Lore A. Rogers, Expert in Dairy *Bacteriology*, Bureau of Animal Industry, U. S. Department of Agriculture. Paper. Pp. 24. Washington: Government Printing Office, 1904.

DIE SYPHILIDE (Syphilis der Haut und Schleimhaut) II. Teil: Therapie. Von Dr. S. Jessner, Königsberg i. Pr. Paper. Pp. 71. Preis M. 1.20. Würzburg: A. Stuber's Verlag (C. Kabitzsch). 1904.

TRANSACTIONS OF THE WEST VIRGINIA STATE MEDICAL ASSOCIATON. Charleston, May 26, 27 and 28, 1903. Instituted April 10, 1867. Paper. Pp. 144. Wheeling: West Virginia Printing Co. 1903.

DES HAARSCHWUNDS URSACHEN UND BEHANDLUNG. Vierte Auflage. Von S. Jessner, Königsberg i. Pr. Paper. Pp. 52. Preis M. 0.80. Würzburg: A. Stuber's Verlag (C. Kabitzsch). 1904.

THE GAZETTE POCKET SPELLER AND DEFINER. English and Medical. Second Edition. Flexible Leather. Pp. 216. Price 50 cents. New York: The Gazette Publishing Co.

New Patents.

Patents of interests to physicians Feb. 16 to March 15, 1904:

752198. Invalid lifting apparatus. Birgit Bratlie, Brooklyn.
752529. Atomizer. Albert S. Dixon, Los Angeles, Cal.
752445. Truss. Daniel T. Foley, Philadelphia.
752395. Antiseptic thermometer case. Philip C. Hay, Chicago.
752463. Emergency case. John B. Morris, Philadelphia.
752252. Movement cure apparatus. Charles Owens, Chattanooga, Tenn.
752356. Curette. Charles J. Pilling, Lansdowne, Pa.
752419. High-tension therapeutic electrode. Manuel R. Rodrigues, Brooklyn.
752361. Vaginal douche. Nicolaus C. E. Schwartz, New York.
752114. Breath guard. Leonidas Sennett and A. L. Moore, Russell, Ky.
753133. Inhaler. Cyrus T. Gamble, Diamondville, Wyo.
753153. Druggist's prescription cabinet. John P. Lonquist, Minneapolis, Minn.
753684. Truss for rupture. Byron J. Douds, Canton, Ohio.
753267. Making a Salve. John F. Huefner, New York.
753711. Thermometer case. Patrick C. Kellett, Brooklyn.
753509. Electrotherapeutic device. Charles K. Munns, Corning, Iowa.
753325. Making chloroform. Albert W. Smith, Cleveland, Ohio.
754276. Syringe. Edwin Bartsch, San Francisco.
754223. Optometer. Wm. J. Laughlin, Waunakee, Wis.
754079. Spiral vacuum tube for therapeutic purposes. Robert Machlett, New York.
754383. Surgical chair. Alexander McDonald, St. Louis.
754231. Clinical thermometer holder. George E. Nettleton, New Haven, Conn.
754386. Hernial truss. Charles P. Norris, Chambersburg, Pa.
753907. Automatic dropper. Wolfgong Obermeir, Lostlake, Wis.
754088. Invalid rocking chair. Boyd M. Owen, Wilkesbarre, Pa.
754015. Device for storing and administering serums. Frank G. Ryan, Detroit.
754261. Ozonizer. Alexander Vosmaer, Nieuwersluis, Amsterdam, and A. Lebret, Utrecht, Netherlands.
754463. Massage machine. Philip J. Kroll, New York.
754925. Massage device. Ottoman Zar-Adusht-Hanish. Chicago.

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Original Articles.

SOME TOXICOGENIC GERMS FOUND IN DRINKING WATER.

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[Research in the Hygienic Laboratory of the University of Michigan, 1903.]

At the opening of the hygienic laboratory of the Michigan University in October, 1888, I began a new method for the bacteriologic examination of drinking water, which, with various modifications, has been carried out since that time.

THE MICHIGAN METHOD.

The method may be briefly described as follows: The samples are collected in sterilized receptacles and sent to the laboratory without delay. Immediately on receipt, plates are made with 0.05 c.c.,0.1 c.c., 0.5 c.c., and 1 c.c. of the water. For many years only gelatin plates were prepared, and these were grown at room temperature. During the past two years, however, only agar plates are used, two sets being made, one of these grown at room temperature, and the other at 38 C. The reason for this modification will be understood by those engaged in the bacteriologic study of drinking water. The toxicogenic bacteria of water have their optimum growth at 38 C., while many non-toxicogenic bacteria found in water have their optimum at the lower temperature. At the higher temperature the toxicogenic organisms crowd out the non-toxicogenic, while at the lower the reverse is true. The colonies developed on these plates are counted at the expiration of twenty-four, forty-eight and seventy-two hours.

At the same time that the plates are made, beef-tea tubes are inoculated with like amounts of the water, and these tubes are kept in the incubator for twenty-four hours at from 38 to 40 C. This temperature is regarded as a point of importance, and is never allowed to fall below 38 C., for the reason already given that many harmless water germs do not multiply at all, or do so but feebly at 38 C. So far as I know, this fact was first observed in this laboratory, and it has been practically applied ever since the opening of the institution in 1888. If no bacteria develop at this temperature the water is reported as perfectly safe. Certainly it can cause no infectious disease when it contains no bacteria that will grow at the temperature of the human body. It matters not how many thousand it may show per cubic centimeter when grown at room temperature.

When germs are found in any of the tubes after twenty-four hours in the incubator, from 1 to 2 c.c. of the beef-tea cultures is injected intra-abdominally into white rats or guinea-pigs. Generally two animals are thus inoculated from each tube. If none of these animals die from the effects of these injections, the water is regarded as safe. If one or more of the animals die, agar plates are made immediately after death from the heart's blood. The thoracic cavity is opened, the heart exposed *in situ*, its surface seared with a hot iron, and the cavity punctured with a sterile-glass pipette, into which a few drops of the blood is drawn. With the blood thus obtained, the plates are made. The purpose held in view in these animal experiments is to use the animal as a plate for separating the toxicogenic organisms from the non-toxicogenic. These agar plates are developed at 38 C., and the success of the method is largely dependent on the skill and care given to this part of the work. The colonies found on these plates are studied most carefully, and in the routine work five cultures are made from each kind of colony. By this I mean to say that if all the colonies appear to be the same, cultures are made from at least five colonies, while if it is evident that there are two or more kinds of colonies present, five cultures are made from each kind. It is true that this procedure takes considerable time and demands much labor, but it has been found that unless this procedure be carried out, pure cultures are not obtained, and it is subsequently impracticable to differentiate the organisms. It not infrequently happens that when the colonies are apparently the same, we succeed in obtaining two or more germs from them. We have tried for these plates various kinds of culture media, such as litmus-lactose agar, for the purpose of bringing out more differentiation among the colonies. This point is still a subject of investigation, but in the routine work we are employing ordinary agar plates. Sometimes it is found necessary to replate the cultures obtained from the plates originally made from the heart's blood. The cultures obtained from these plates are carried through tests on various media, which will be brought out in detail later. This has been not inappropriately called "The Michigan Method."

RESULTS OF THE EXAMINATIONS.

By this method 709 samples of water have been examined since October, 1888. Of these, *213 have* contained germs that killed animals, while 496 have failed to kill. These figures include only those samples sent by health officers and other physicians, and do not include all of these, because the records of some of the examinations have been lost. It is the purpose of this paper to give in a condensed form some of the most important results obtained by this method, which has now been employed for sixteen years. Before giving the conclusions, it may be well to make some brief statements concerning some of the waters in which toxicogenic germs have been found. In doing this I will group the waters according to the year in which the examinations were made.

1888: From October to December 31, 15 samples were examined by this method, in none of which were toxicogenic germs found.

1889: In this year 41 samples were examined, 13 of which contained toxicogenic organisms. The first water found to contain a toxicogenic germ came from the water supply of Grand Rapids, Mich., at the time of the prevalence of a mild epidemic of typhoid. Two samples were sent, one from the public supply, which was the unfiltered water of Grand River, which receives the sewage of several small cities above Grand Rapids, and the other from a spring near the city. The first contained 720,000, and the second 2,400 germs per c.c. The first killed rabbits, while the second did not. Therefore, the first was condemned on account of both the number and kind of the germs. Our records contain but little information concerning the organism found in this water. It did not correspond to any of the descriptions given in Eisenberg's tables.

The second toxicogenic organism found came from cistern water in Ann Arbor. Five members of a family of seven (all save the father and mother) had typhoid. There were no other cases in the town at the time, and it was not supposed that the members of this family drank the cistern water, but on inquiry it was learned that the young people used it in their ablutions and for cleaning their teeth. Pitchers of the cistern water were kept in their bedrooms, and one remembered that he had occasionally drank it. The cistern was exceedingly dirty, as was found to be the case on examination, and the water contained 60,000 bacteria per c.c. The toxicogenic organism found in this water is that which has been described[1] under the name of *Bacillus aquatilis venenosus brevis.*

Nos. 3, 4, 5 and 6 of this series came from Lake Teal, the water supply of Negaunee, Mich., at the time of the prevalence of typhoid at that place. Five samples were sent for examination, the fifth being from a sand shaft, this did not contain any toxicogenic bacteria.

No. 7 came from a well near Deerfield, Mich., and was sent on account of the prevalence of typhoid in the family using the water. The toxicogenic germ found in this case was a liquefying organism, undoubtedly a member of the proteus group, and I do not believe that it had any causal relation to the typhoid fever.

Nos. 8 to 13 came from shallow wells at Iron Mountain, Mich., and were sent on account of the existence of typhoid in the families using these waters. This also was a liquefying organism, and had no relation to the disease.

1890: In this year 72 samples of water were examined, 14 of which killed animals. Nos. 1 and 2 came from a cistern that supplied drinking water to a fraternity house in Ann Arbor. Investigation showed that the hopper that received the chamber slops leaked into the cistern. The organism found in this water belongs to the venenosus group, which will be described later.

No 3 came from a driven well at Rankin, Ill., was a liquefying organism, and had no relation to the typhoid existing in the family.

No. 4 came from a lake at Soudan, Minn., and was dual for the purpose of ascertaining whether or not the ter or was suitable for drinking purposes. Of the two samples sent, both were from the lake, but at different distances from the shore, and from places of possible contamination. The one nearest the shore contained a toxicogenic germ which seemed to be identical with that obtained from the Negaunee water in 1889.

No. 5 was taken from a well at Soudan, Minn., and was suspected on account of the relative position of the well and privy vault. This organism belonged to the venenosus group. It may be remarked that this water contained only 80 germs per c.c., and was chemically unobjectionable.

No. 6 was from an artesian well at Gladwin, Mich., and was plainly a colon bacillus. The organisms probably came from contamination while collecting the water, as other samples from the same well were not contaminated.

No. 7 was a colon bacillus from a well at Imlay City, Mich. Both of these wells were prospective water supplies, and had not been used.

No. 3 of this series is interesting. It came from the public water supply of Sault Ste. Marie, Mich. This city takes its water supply above the rapids, and ordinarily it is a very pure water. In the fall of 1890, owing to a break in the lock, more than 200 boats were detained for two days above the lock, and in the immediate vicinity of the intake. Some ten days later typhoid appeared, and the deaths were reported to be not less than thirty. All the cases appeared within a few weeks, and this sample was taken with the appearance of the first cases. Samples of the same water collected one month later showed no toxicogenic organisms. The germ found in this water belongs to the venenosus group.

The germ found in No. 9 belonged to the proteus group.

Nos. 10 and 11 came from Wyandotte, Mich., the first from the well of a milkman, whose milk was plainly the cause of the limited outbreak of typhoid. The same germ was found in the water of the well and in the milk, and belonged to the venenosus group. In the public water supply, No. 11, a liquefying organism was found.

Nos. 12 and 13 came from Torch Lake, Mich.; No. 12 from the lake and No. 13 from a well. The men who had typhoid worked at a sawmill on the bank of the lake, and near both lake and well was a large privy that had been used for years and had never been cleaned. A third sample sent at the same time was from another well more than a quarter of a mile distant from the lake, also from the first well. This contained no toxicogenic germs. The men while at work drank from the well near the lake, and when not at work drank from the other well. No one who did not work at the mill developed typhoid. It may not be amiss to state that these facts were not known until after the report was made, the samples having been sent to the laboratory under numbers. The germ found in the well, also that found in the lake water, belonged to the venenosus group.

Nos. 14, 15 and 16 were samples of water from St. Johns, Mich., taken from the public water supply at the time of an outbreak of typhoid. The water was undoubtedly contaminated from nearby privy vaults, and the germs belonged to the venenosus group.

1891: In this year 20 samples were examined, only two of which killed animals. No. 1 of this series came from the public water supply of Duluth, Minn., in January, 1891, at the time of the prevalence of a severe epidemic of typhoid. Five samples were sent under numbers and without intimation of their respective sources. It turned out that four were from hydrants in different parts of the city, and one from a spring. The one in which the toxicogenic germ was found, as the health officer subsequently informed me, was taken from a tap in a doctor's office, the occupant of which had gone home two weeks before with typhoid, and so far as known, the tap had not been used again until the sample sent me was taken. The germ found in this water has been described as *B. venenosus invisiblis*. It may be remarked that an expert bacteriologist in Massachusetts made several examinations of this water during the epidemic and reported it perfectly safe, and well he might. relying as he did on the number of organisms, which in the four samples examined in this laboratory ran from 80 to 800 per c.c. However, no intelligent man will now deny that the epidemic was due to water pollution, whether the germ found in this laboratory was the cause or not.

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[1] Jour. Med. Sci., August, 1902.

No. 2 came from the public water supply of Adrian, Mich., and was sent on account of the existence of typhoid fever. It was *B. venenosus*.

1892: In this year 37 samples were examined, three of which killed animals. The three waters that furnished toxicogenic germs in this year are not worthy of especial notice. Two were from wells, and were sent on account of the existence of typhoid in the family using the water. In both of these *B. venenosus* was found. The third came from a hydrant at East Lake, Mich., and contained a colon bacillus.

1893: The most interesting sample of this year came from the public water supply of Ironwood, Mich. On June 4, Health Officer Nevin sent a sample because a few cases of typhoid had appeared. I found nothing suspicious about the water, the number of bacteria per c.c. being 4,620, and these seemed to be of only one species, which was identified as *B. fluorescens liquefaciens*. Cultures were injected into white rats without effect. and the water was pronounced safe. On June 10 the superintendent of the water works sent a sample. The number of bacteria was increased. being now 7.680 per c.c., but this was not alarming. The *B. fluorescens* still predominated, but in addition there was *B. venenosus*. This water was condemned, but the superintendent of the water works failed to notify the citizens that the water was unsafe, and nearly 700 cases of typhoid fever developed within three weeks. Samples of this water were repeatedly examined during July and August of this year, and *B. venenosus* continued to be present until August 8. The next examination was made August 25, when *B. fluorescens* and *Diplococcus aquatilis* were the only organisms detectable.

1894: In this year 50 samples were examined, 20 of which killed animals. On May 4, 1894, it was found that the Ann Arbor water supply contained *B. venenosus*. The water at that time came from several springs, and the contamination was traced to one of these; that is, this organism was sought in the water of each spring, and found in one only. This spring was detached from the pumps, and the reservoir in use at that time emptied, every hydrant in the city opened. and reservoir and pipes washed out, the bottom and walls of the reservoir whitewashed, and then the reservoir was filled with water from the uncontaminated springs. During the month of May there were five cases of typhoid reported in the city. The next examination of this water of which we have a record was made May 15, when it was found to be free from harmful organisms. In January, 1894, *B. venenosus* was found in the water supply of Grand Forks, N. Dak., where typhoid then prevailed. January 29 two samples, one taken from the mouth of the intake and the other from the pump, were sent for examination. The toxicogenic germ was found only in the water from the intake, and the decision on this water was as follows: "*B. venenosus* I regard as a variety of the typhoid germ. The use of this water should be discontinued." It may be remarked that, so far as the number of bacteria is concerned, both of these samples made a good showing, No. 1 having 1,000 and No 2 800 per c.c. after forty-eight hours. It may be worthy of note that the germs found in the sample from the intake were *B. venenosus, B. fluorescens* and *B. figurans*. Possibly it is also worthy of note that on February 5 I examined ice taken from the Red River above Grand Forks. This ice contained no toxicogenic bacteria, but each c.c. of the water obtained by melting the ice contained 1,280,000 bacteria, and the following recommendation was made: "There is no proof that this ice can cause any disease. However, the large number of non-toxicogenic germs renders it undesirable for drinking, and this ice should not be placed in milk or other drinks next summer." The Grand Forks water continued bad for many months, samples having been examined from time to time. On July 14, 1894, I examined two samples each from Red Lake River and Red River above the confluence of these streams. The former contained *B. venenosus* and *B. liquefaciens albus*, and the second contained *Proteus vulgaris, B. liquefaciens albus,* and *B. fluorescens liquefaciens*. The two samples of Red Lake River water contained, respectively. 58,000 and 38,000 bacteria, and those from Red River 120,000 and 160,000 per c.c.

1895: In this year 48 samples were examined, 13 of which contained toxicogenic germs. In the summer of this year a number of cases of typhoid developed simultaneously among the guests at the Mexican Gulf Hotel at Pass Christian, Miss. The samples of water came from an artesian well at the hotel, and were sent by Dr. LeRoux. The first sample was examined July 27, 1894. The plates, which were gelatin, and kept in the cooler at 18 to 20, showed no growth at the expiration of twenty-four hours. At forty-eight hours there had developed 2,000; at seventy-two hours, 3 000 per c.c. The germs present were *B. albus* and *B. coli communis*. The latter was not typical. and intraperitoneal, subcutaneous and intravenous injections were made in rats, guinea-pigs and rabbits. The amount used varied from 0.5 to 2 c.c. of a beef tea culture twenty-four hours old. Death occurred in all within from twelve hours to three days. The peritoneum—whatever the method of inoculation—contained a plastic exudate; the mucous membrane of the small intestine was inflamed, and the spleen in the more protracted cases enlarged. The organism was obtained from the heart's blood, spleen, liver and kidney. The record shows that it was "an oval motile bacillus, with length from two to two and one-half times the breadth." Unfortunately the description stops here. The recommendation was as follows:

> If the jug in which the water was sent was thoroughly sterilized and the germ found really exists in the water as it is taken from the well, the use of the water should be discontinued. As stated above, this is not a typhoid germ, but it may induce symptoms resembling those of typhoid fever.

On August 16 three samples, one from the Mexican Gulf Hotel well and one each from West End and

East End artesian wells, were received. At the expiration of twenty-four hours no colonies were seen on any of the plates. After forty-eight hours the hotel water showed 200, the West End 500 and the East End 2,000 per c.c. The only organism detected in any of these waters was *B. albus*. The recommendation was as follows:

> These waters in their present condition can not cause disease. Let it be understood that this statement is based exclusively on the results obtained by the bacteriologic examination of the samples sent. The water from the Mexican Gulf Hotel first sent did contain a toxicogenic germ. Whether this germ was an actual constituent of the water, or due to imperfect sterilization of the jug, I can not tell. If there was a poisonous germ in the water it had evidently disappeared before the small bottles were sent. If this water has been contaminated once, it may become so again, unless the conditions are changed. This should lead to the most careful examination.

These waters were again examined September 10, and *B. albus* only was found.

In September, 1895, a small outbreak of typhoid fever occurred at Mt. Iron, Minn., and led Dr. Brown to send two samples of the village supply, in both of which a colon-like bacillus was found. In the public water supply of Pontiac, Mich., there was found the only toxicogenic coccus ever found in drinking water in this laboratory, in July, 1895. After death from peritoneal injection, the liver was studded with small pustules. "The organism which caused the death of these animals is a pus germ, and probably came from the container."

In March, 1895, *B. venenosus invisiblis* was found in two samples of well water from Port Huron, Mich., where typhoid fever was present in families using these waters. The water of a third well, used by a family in which typhoid existed, showed no toxicogenic germ. These three wells were in close proximity, and it may be of interest to give the number and kind of bacteria in the waters of each. No. 1 contained 2,000 bacteria per c.c. counted at the expiration of twenty-four hours, and these were *B. albus* and *B. fluorescens liquefaciens*. No. 2 showed 4,000 colonies, and these were *B. albus putridus*, *B. fluorescens liquefaciens* and *B. venenosus invisiblis*. No. 3 developed 500 colonies, and the germs corresponded in kind with those in No. 2.

1896: In this year 51 samples were examined, 15 of which contained toxicogenic germs. In February of this year the Duluth reservoir was emptied and cleaned on account of the appearance of typhoid. Some of the muddy water from the bottom of the reservoir and some of the scrapings from the outside of a Chamberland bougie, through which this water had been filtered for forty-eight hours, were examined. The number of colonies, even when one drop of the water was used, were too great to be counted, and no attempt was made to isolate the different non-toxicogenic bacteria. Cultures from the heart's blood of animals killed with these waters revealed the presence of a bacterium, of which the following is recorded:

> This germ is not identical with the typical Eberth bacillus, but it belongs to the same group. Its chief characteristics are as follows: (1), it is motile; (2), it does not liquefy gelatin; (3), it does not coagulate milk; (4), it does not give the indol test; (5), it forms a yellowish-white growth on potato; (6), in pure cultures it is toxicogenic to animals. It is the belief of the undersigned that water containing this germ is not a safe drinking water.

In September, 1896, *B. pyocyaneus* was found in the public water supply of Milwaukee, Wis. This was the first time that this organism had been found in samples sent by health officers. It had been frequently obtained from the waters of unused wells. I have never considered the finding of this germ a cause for condemnation of the water. Typical colon bacilli were found in three samples of Milwaukee water, but soon disappeared. They were present in all three samples examined September 17, but had wholly disappeared by September 25. Our records show that cities taking their water supplies from the Great Lakes when the intake is close to the shore, and especially when the intake is from a land-locked bay, frequently drink colon bacilli. This is true of Menominee, Marquette, Traverse City and Petoskey.

1897: In this year 32 samples were examined, only one of which contained a toxicogenic germ. This water was from Marquette, Mich., and the organism was a typical colon bacillus. The water of this city was examined monthly for some years, and on account of the occasional finding of the colon bacillus, the intake was moved out into the lake, and since that time the colon bacillus has been found in the water only once.

1898: In this year 56 samples were examined, 13 of which contained toxicogenic germs. While many of these have more or less interesting features space will prevent me from referring to more than a few. In March of this year a serious epidemic of typhoid appeared at St. Clair, Mich., and the public water was clearly responsible for the disease. This water was repeatedly examined, and a typical colon bacillus was obtained each time. Every known process for the separation of colon and typhoid bacilli was tried (except that of making a number of cultures from every plate, even when the colonies have the same appearance, and which is now used in this laboratory), but the results were always negative. The germ obtained was a short, slightly motile bacillus, with rounded ends. It coagulated milk within twenty-four hours, gave the indol test, reddened litmus and evolved gas from glucose and lactose cultures. The public water supply was taken from the St. Clair River, and it was supposed to be taken at a distance of some 200 feet from the shore, but investigation showed that the intake pipe had been broken by the ice, and the water was, in fact, taken not more than 20 feet from the shore. Within a quarter of a mile above this point several privies emptied into the river. The intake pipe was repaired and extended a distance of about half a mile, and beyond a long sand bar which ran parallel with the shore, and after this was done the epidemic ceased. It was first asserted by the people of St. Clair that their water supply was contaminated by the sewage of Port Huron, some ten miles up the river; and the water of the St. Clair River, at the mouth of Black River, carrying the sewage of Port Huron, was examined. In this we found "a highly motile bacillus which coagulated milk, reddened litmus, evolved gas and gave the indol reaction. This water is contaminated with fecal matter, and the colon bacillus found in it is highly virulent." However, there is no reason for supposing that the epidemic of St. Clair was due to infection at Port Huron for the following reasons: (1) The main current of the river was beyond the sand bar at St. Clair; (2) the broken pipe at St. Clair and the privy vaults were sufficient to account for the contamination of the St. Clair water, without going to Port Huron to look for the source of the trouble; (3) the epidemic promptly ceased as soon as the local conditions were improved, TABLE SHOWING CERTAIN CULTURAL PROPERTIES OF SOME BACTERIA FOUND IN WATER.

Serial Number	Locality where from	Hours required to Kill guinea pig	Morphology: Long rods	Morphology: Short rods	Morphology: Cocco-bacilli	Morphology: Thick	Morphology: Single	Morphology: Pairs	Morphology: Threads	Morphology: Motile	Cultural Properties: Liquefaction of Gelatin	Indol-Ring Test	Litmus Milk 24 hr: Acid	Litmus Milk 24 hr: Coagulation	Litmus Milk 48 hr: Acid	Litmus Milk 48 hr: Coagulation	Litmus Milk 72 hr: Acid	Litmus Milk 72 hr: Coagulation	Litmus Milk 96 hr: Acid	Litmus Milk 96 hr: Coagulation	Potato Streak, Appearance: Visible	Appearance: Spreading	Appearance: Moist	Appearance: Thick	Color: Colorless	Color: Gray	Color: Yellow	Color: White	Color: Brown	Color: Pink	Potato darkened	Time in hours	Fermentation, Glucose 2%: Total Gas	Glucose: Hydrogen	Glucose: Carbon dioxide	Saccharose 2%: Total Gas	Saccharose: Hydrogen	Saccharose: Carbon dioxide	Lactose 2%: Total Gas	Lactose: Hydrogen	Lactose: Carbon dioxide	Time in hours	Group to which organism probably belongs
1	Typhoid B. (control)			+		±	+			+	−	0	−	−	−	−	−	−	−	−	+	−	+	−	+	−	−	−	−	−	−	48	0.0	−	−	0,0	−	−	0 0	−	−	24.	Typhoid
2	" "			+	−	±	+			+	−	0	−	−	$+^{1}$	−	$+^{1}$	−	$+^{2}$	−	+	−	+	−	+	−	−	−	−	−	−	"	0.0	−	−	0.0	−	−	0.0	−	−	"	Typhoid
3	Colon B. "			+		+	+			−	−	5	$+^{5}$	$+^{10}$	$+^{10}$	+	+	+	+	+	+	−	−	+	−	−	+	−	+	−	−	"	2.4	1.8	0.6	0.0	−	−	1.6	1.3	0.3	"	Colon
4b	University Hosp		+	−	−	+	+	+	−	+	−	0	−	−	−	−	−	−	−	−	+	−	−	+	+	−	−	−	−	−	−	"	0.0	−	−	0.0	−	−	0.0	−	−	"	Saprophytic
5a	Traverse City	18	+			+	+	+	+	+	$+^{10}$	1	$+^{2}$	+	$+^{8}$	$+^{10}$	+	+	+	+	+	$+^{2}$	+	+	−	+	+	−	−	−	−	"	0.4	0.3	0.1	0.0	−	−	0 0	−	−	"	Proteus
6a	Whipple Barracks	14	−	+	−	+	+	+		−	−	0	$+^{3}$	−	$+^{8}$	−	$+^{10}$	−	$+^{10}$	−	+	$+^{2}$	+	+	−	+	−	−	−	−	+	"	6.0	2.2	3.8	5.0	1.6	3.4	0.0	−	−	"	Doubtful
d	"		+	+			+	+		+	$+^{3}$	4	$+^{2}$	−	$+^{8}$	+	$+^{10}$	+	$+^{10}$	+	+	−	+	−	+	−	−	−	−	−	−	"	1.4	1.2	0.2	0.8	0.7	0.1	0 0	−	−	"	Proteus
e	"			+		+	+	+		−	$+^{2}$	0	$+^{3}$	−	$+^{8}$	−	$+^{10}$	−	+	+	+	$+^{4}$	+	+	−	−	+	−	−	+	−	"	1.5	1.1	0.4	0.2	0.2	0 0	0.0	−	−	"	Proteus
7a	Whipple Barracks	18		+		−				+	−	0	−	−	−	−	−	−	−	−	+	−	+	+	−	−	+	−	−	+	−	"	0.6	−	0.0	0 0	−	−	0.0	−	−	"	Venenosus
b	"			+		+				+	$+^{3}$	6	−	−	$+^{8}$	+	$+^{5}$	+	$+^{10}$	+	+	−	+	−	+	+	−	−	−	−	−	"	0.0	−	−	0 0	−	−	0 0	−	−	"	Proteus
8a	Ann Arbor	96	+	+			+	+		+	$+^{3}$	4	−	−	−	−	−	+	−	+	+	−	+	−	+	−	−	−	−	−	−	"	1.8	1.2	0.6	0.0	−	−	0.0	−	−	"	Proteus
14a	Patoskey	24		+		+				+	−	0	$+^{6}$	−	$+^{10}$	−	+	$+^{10}$	+	+	+	−	+	−	−	−	−	+	−	−	−	"	1.4	1.1	0.3	1.6	1.3	0.3	0.6	0.5	0.1	"	Doubtful
b	"		+			±	+	+	+	+	+	5	$+^{6}$	−	$+^{10}$	$+^{10}$	+	+	+	+	+	−	+	−	−	−	−	+	−	−	−	"	1.7	1.4	0.3	1.8	1.4	0.4	0.8	0 8	0.0	"	Proteus
20a	Battle Creek	24			+		+	+	+	+	−	0	$+^{6}$	−	$+^{10}$	$+^{10}$	+	+	+	+	+	−	−	+	−	+	−	−	−	+	−	"	28	2.5	0 3	3 4	2.0	1.4	3.0	18	1.2	"	Doubtful
b	"										−	4	$+^{6}$	−	$+^{10}$	$+^{10}$	+	+	+	+	+	$+^{3}$	−	+	−	+	−	−	+	−	−	"	4.0	2.2	20	38	2.0	18	4.1	4.0	0.1	"	Colon
e	"				+		+	+	+	+	−	0	−	−	−	−	−	+	±	$+^{10}$	+	−	−	+	−	+	−	−	−	−	+	"	0.0	−	−	0 0	−	−	0.0	−	−	"	Venenosus
21a	Battle Creek	18			+		+	+		±	+	4	+	−	+	+	+	+	+	+	+	−	+	+	−	−	−	−	−	+	−	"	0.2	−	−	0.0	−	−	0 0	−	−	"	Proteus
	"																																										
22a	Battle Creek	24			+		+	+	+	+	−	0	−	−	−	−	$+^{2}$	+	$+^{3}$	$+^{10}$	+	$+^{2}$	+	$+^{2}$	−	+	−	−	−	−	+	"	0.0	−	−	0.0	−	−	0.0	−	−	"	Venenosus
e	"			+			+	+		+	−	0	$+^{5}$	−	$+^{10}$	$+^{5}$	$+^{10}$	$+^{10}$	+	+	+	$+^{4}$	+	$+^{6}$	−	+	−	−	−	−	−	"	3.2	1.8	1.4	3.0	1.8	1.2	3.0	1.8	1.2	"	Doubtful
9a	Ann Arbor			+		+	+			+	−	0	$+^{5}$	−	$+^{5}$	−	$+^{3}$	−	$+^{5}$	−	+	−	−	−	+	−	−	−	−	−	−	"	2.6	18	0.7	0.0	−	−	0.2	−	−	"	Doubtful
10a	"	12		+		+	+			+	−	0	$+^{3}$	−	$+^{5}$	−	−	−	−	−	+	−	−	−	−	−	+	−	−	−	−	"	0.0	−	−	0.0	−	−	0.0	−	−	"	Venenosus
d	"			+			+			+	−	0	−	−	−	−	−	−	−	−	+	−	+	+	−	−	+	−	−	−	+	"	0.0	−	−	0 0	−	−	0.0	−	−	"	Venenosus
11a	Patoskey	8		+		+	+			−	+	2	+	+	$+^{1}$	+	$+^{1}$	+	$+^{1}$	+	+	+	+	+	−	−	−	−	+	−	−	"	1.0	−	−	0.5	0.3	0.2	0.0	−	−	"	Proteus
12a	"	96		+			+			+	−	0	$+^{3}$	−	$+^{1}$	−	−	−	−	−	+	−	+	−	+	−	−	−	−	−	−	"	2.2	−	−	0.3	0.1	0.2	0.0	−	−	"	Doubtful
13a	"	20	+				+			±	−	0	$+^{3}$	−	$+^{3}$	−	$+^{3}$	−	$+^{8}$	−	+	−	+	+	−	−	−	+	−	−	+	"	3.0	1.5	1.5	1.7	0.9	0.8	0.0	−	−	"	Doubtful

notwithstanding the fact that Port Huron continued to empty its sewage into the river. It might be added that analyses of the Detroit water in March, 1898, failed to show any toxicogenic organism, notwithstanding the sewage of Port Huron and the typhoid at St. Clair.

1899: In this year 35 samples were examined, only two of which contained toxicogenic germs. A non-liquefying motile bacillus which did not coagulate milk, redden litmus or give the indol test, was found in the water of a well at Charlevoix, Mich. Typhoid existed at that time in the family using this water.

1900: The colon germ was repeatedly found in the water supplying the Fletcher Paper Company at Alpena, Mich. There was no typhoid fever among the employes. *B. venenosus* was found in well water sent from Yale, Mich., on account of the existence of typhoid in the family using the well. The same organism was found in the water of Lake Sally, supplying Ishpeming, Mich., at a time when typhoid fever prevailed in that city. Three samples were sent, and the same germ was found in each.

It is an interesting fact that *B. venenosus* was found in the water of Island Lake in 1898, and two years later the same organism was found in this water. This is a small lake, on the shore of which the five Michigan regiments recruited in 1898 had their state encampment, and where the Thirty-fifth Michigan developed an epidemic of typhoid of serious proportions. This lake is quite remote from any village, receives no waste except from a few farm houses, and is not used as a water supply. *B. venenosus* was found in the waters of three wells at a time when typhoid existed in the families using these waters.

1901: In this year 57 samples were examined, 23 of which contained toxicogenic germs. During the fall of 1901 and the winter of 1901-02, the people of Ann Arbor drank daily a water that contained a typical colon bacillus, and the same is true of at least two other small cities in Michigan, and there was no typhoid at any of these places. During the summer of 1901 several examinations were made of both the filtered and unfiltered water supplied at Homestead, Pa. The unfiltered water contained a typical colon bacillus, while the filtered samples contained no toxicogenic germs. However, we have examined many samples of filtered water in which we have found colon bacilli.

1902: In this year 31 samples were examined, 14 of which contained toxicogenic germs. The most interesting case investigated during this year came from Elk Rapids, Mich. This village takes its water supply from Elk Lake, around the shores of which there are numerous possibilities of contamination, and some of these are not distant from the water intake. In February, a limited outbreak of typhoid led to the water being sent for examination. All of the samples contained a toxicogenic germ that was reported as belonging to the colon group, but more extended study makes this classification doubtful. These waters undoubtedly did contain the colon bacillus, but by the extra care in plating already referred to, we obtained from each of these in addition to a typical colon germ, another. This second organism was highly motile, did not coagulate milk, did not redden litmus, did not give the indol test, but did ferment glucose, lactose and saccharose.

1903: During this year 87 samples have been examined, 54 of which contained toxicogenic germs. A few of these are described sufficiently in the accompanying table. The figures accompanying the signs in this table are employed to indicate the relative action of the germ on a scale of 10. For instance, in the column "Indol," the figure 5 indicates that the indol reaction was one-half as marked as it is in cultures, giving the very best indol reaction.

Nos. 1 and 2 in this table are typhoid cultures, and are given here simply for the purpose of comparison. No. 3 is the laboratory culture of the colon bacillus, and is given for the same reason that Nos. 1 and 2 are inserted.

No. 4 is a non-toxicogenic organism, and is inserted here for the purpose of illustrating how easy it might be for one to suppose that he has detected and isolated a typhoid bacillus in water, when the pathogenicity of the organism is not tested. This germ was found in water obtained by melting a piece of ice, and it will be seen that in practically every particular as given in the table, it conforms to the typhoid germ, but even 5 c.c. of the beef tea culture of this organism injected into the abdominal cavity of a guinea-pig weighing from 200 to 300 grams is absolutely without effect. The organism is strictly a saprophyte, and notwithstanding its close cultural similarity with typhoid fever, it is a wholly different organism. I described this germ in 1891 under the name of *B. aquatilis invisiblis.*

No. 5a is a fairly typical proteus organism, as found in drinking water. It liquefies gelatin more rapidly than most samples belonging to this group, and its production of indol is less. Waters containing the proteus germ only are not condemned. However, repeated plating is necessary to be sure that some non-liquefying organism is not mixed with the proteus.

The germs described under Nos. 6 and 7 came from two samples of water sent to the laboratory by Lieutenant Thomason, U. S. A., from the Army post at Whipple Barracks, Ariz. Dr. Thomason wrote as follows:

> The water supply to this post is identical with that of the city of Prescott. It is derived from the valley of the Del Rio, twenty-two miles north. Its source is from a large spring, one of a series of springs, apparently from the same underground source, that bubble up at frequent intervals along the valley for a distance of two and a half miles, and then entirely disappear. These bubbling springs must originate from some subterranean stream. So far as can be ascertained, there is ordinarily no opportunity for contamination. Unfortunately the pipe line leading to this source of supply is undergoing repair, which will require several weeks. In the meantime the city and post are at present being supplied from a well dug in a river bed (the river beds in this country are dry several months in the year), which collects the waste of the greater portion of the town. This supply has, in my opinion, every opportunity for infection. Animal inoculations with germs obtained from this water have in my hands proved toxic, guinea pigs having died within 24 hours. We have not experimented with the Del Rio supply from want of animals. . . . The drinking water used in the garrison has been boiled since I discovered the character of its present supply. Typhoid fever has been endemic in the city of Prescott for years. Many persons having typhoid fever claim that they used no other water than that from the Del Rio supply.

The Del Rio water furnished us with the three germs described under 6, and the well water with the two germs described under 7. Guinea-pigs inoculated with water No. 6 died within fourteen hours. By plating and replating from the heart's blood of these animals, we obtained the organisms described under 6a, 6d and 6e. We have studied these germs very carefully, and it is possible that 6d and 6e are the same organism. They certainly belong to the same group, and we have classified them as proteus germs. It will be observed, however, that while 6d is motile, 6e is non-motile. 6d produces indol, while 6e does not; 6d coagulates milk more promptly than 6e. However, we do not lay a great deal of stress on this point, nor on the slightest differences seen in the potato cultures, except that 6d was colorless on potato, while 6e was plainly yellowish pink. So far as gas production is concerned, the two germs might be the same. Whatever the relation between 6d and 6e, both of these certainly differ from 6a. The latter does not liquefy, does not produce indol, does not coagulate milk, even after ninety-six hours, and does evolve a much larger amount of gas than either 6d or 6e; 6a, as will be seen from the table, we have classified as doubtful. This water would be condemned.

The differences between 7a and 7b are plainly seen. 7a is a non-liquefying, while 7b is a liquefying organism. 7a produces no indol, while 7b produces this substance in abundance. 7a neither coagulates nor produces acid in milk; 7b does both. 7a is a typical germ of the class, which in this laboratory we have designated under the head of venenosus. Its close resemblance to the typhoid bacillus is easily seen by a study of the table.

8a came from a spring which breaks from a hillside, the top of which is covered with houses, and there are many chances of pollution. This organism certainly belongs to the proteus group, and the water is not condemned.

14a and 14b were obtained from the heart's blood of animals inoculated from the public water supply of Petoskey, Mich. It will be seen that one of these does not liquefy gelatin, while the other does, and one produces no indol, while the other produces this substance. One coagulates milk more promptly than the other. So far as growths on potato and the evolution of gas are concerned, these organisms closely resemble each other. 14a is classed as doubtful, and 14b as proteus. The water is condemned on account of the presence of 14a.

20a, 20b and 20e were obtained from the heart's blood of animals inoculated with water from Battle Creek, Mich. 20e is quite typical of the group venenosus. 20b certainly belongs to the colon group, while 20a we have classed as doubtful. This water is condemned.

21a was from a test well sunk in searching for good water. The water was not condemned.

22a is what we have called *Bacillus venenosus brevis.* Under the microscope this short bacillus may easily be mistaken for a coccus, especially in stained specimens, but when examined in a hanging drop, it will be seen that it is a short motile bacillus. 22e is classed as doubtful.

9a came from a well near Ann Arbor, and was sent for examination because one man in the family using this water developed typhoid fever. It must be stated, however, that this man was several times away from home, and at least once, about two weeks before the development of the disease, spent twenty-four hours in a city where typhoid fever was prevalent.

10a and 10d are interesting. They were obtained from the heart's blood of the same animal. The water came from a well at a farmhouse in which there were two cases of typhoid fever, one of extreme severity and the other light in character. The only marked difference between 10a and 10d is that 10a produced acid in milk, while 10d did not. Neither coagulated milk.

11, 12 and 13 came from different samples of water. All these waters were sent from Petoskey. 11a came from a test well, while 12a and 13a came from the city supply. 11a was not condemned; 12a and 13a were condemned.

CONCLUSIONS.

1. Of 709 samples of drinking water sent by health officers and ot[illegible]e hygienic laboratory of the [illegible] between Oct. 1, 1888, and Dec. 31, 1903, 213, or 30 per cent., contained toxicogenic germs.

2. Ten samples, or 1.4 per cent., contained no bacteria capable of growth at 38 C. Of these 10 samples, 4 were from deep springs, and 6 from the Great Lakes —4 from Lake Superior and 2 from Lake Huron.

3. Waters that contain no germs capable of growth at 38 C. or higher can not cause disease.

4. Waters that contain no toxicogenic germs are not condemned.

5. Waters that contain as their only toxicogenic organism a typical colon bacillus are not condemned. By a typical colon bacillus we mean one which is nonmotile, produces indol abundantly, produces acid in milk, coagulates milk within twenty-four hours, and evolves more or less gas from glucose and lactose cultures.

6. Waters which contain as their only toxicogenic organism a typical proteus bacillus are not condemned. It must be remembered that other germs can not be excluded until after repeated plating of the cultures made from the heart's blood fails to show their presence.

7. Waters that contain any member of the venenosus group or any such germ as we have marked doubtful in the table given are condemned.

8. I have never found in drinking water a germ that responded to the Widal test.

9. Sixteen years of experience with this method of water analysis convinces me that the results given by it are in the majority of instances trustworthy.

The development of this method of water analysis and its application have been largely due to the skillful and conscientious work of the many assistants who, since 1888, have worked with me on this subject. I can at present do nothing more than mention their names. During the first three years I had the assistance of the late Dr. F. W. Brewer, who subsequently became a professor in the Agricultural College of Utah. Much credit is also due to Drs. Ives, McClintock, McClymonds and Cooley; and the method owes much to my more recent assistants, Drs. Carhart, Cooper and Williams.

A CASE OF ATROPHY OF HAND MUSCLES

WITH LOCALIZED SENSORY DISTURBANCES; POSSIBLE EARLY SYRINGOMYELIA.*

D. I. WOLFSTEIN, M.D.
CINCINNATI.

The following case is reported because it possesses very interesting features:

History.—Miss L., aged 27, consulted me first, Feb. 27, 1903, sent by her family physician because of a localized wasting of the thumb. There is no neuropathic family taint, nor has any myopathic disease ever been present in the family so far as known. Two other sisters were examined carefully with negative results. The girl is unusually tall and very slender. While tallness is a family characteristic, she is the tallest of all. Tuberculosis has not existed in the family, and patient is also free therefrom.

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* Read at the Fifty-fourth Annual Session of the American Medical Association, in the Section on Nervous and Mental Diseases, and approved for publication by the Executive Committee: Drs. Richard Dewey, H. A. Tomlinson and F. W. Langdon.

Pain in the right arm has been noticed since her twelfth year. The arm has also seemed weaker at times than the other, but she has performed all the arduous duties of laundry and house work for many years. There is no history of the supervention of the pain and weakness after any illness, acute or otherwise, which might be regarded as an etiologic factor. Trauma is not in evidence. The pain was never severe in character, but always more noticeable after any special muscular effort, or when heavy clothing was worn. Neither quivering nor twitching has ever been noted. During the last five years and up to the date of the institution of electric treatment by me cramps would appear in the fingers of the right hand. These cramps would cause a stiffening of the fingers, producing extension of the hand on the wrist and flexion of the distal phalanges. Occasionally only two fingers would stiffen in this way, sometimes the little and ring finger, at others the thumb and neighboring two. The cramps would come on several times daily for a few weeks, followed by free intervals of varying duration. There was never any tendency of the cramps to further extension to the arm, and, as said, since the beginning of electric treatment they have been absent.

About three to five weeks prior to February 27, 1903, she noticed for the first time a sinking in of the thumb. She was positive that the wasting must have occurred at about the time stated, certainly not at a period much earlier. It is, however, my impression that the atrophy did not come on so suddenly as she states, though her opinion on this point is quite firmly maintained.

Subjective sensory disturbances were never observed. At no time did she complain of any "numbness" or "tingling" or "coldness," and when questioned by me she did not recall any such symptom.

To sum up she came to me solely because of the atrophied muscle, for had she not discovered this the weakness and pain would have appeared of not much import.

Examination.—Patient is 6 feet 2 inches high, very slender, weight 146 pounds. The right arm shows no change, either in the muscles above or below the elbow, but along the outer border of the thumb there is a decided wasting. This is limited to that part of the thenar eminence occupied by the opponens, and the outer part of the abductor pollicis. The interossei and lumbricals are not involved, consequently there is neither deepening of the spatia interossei or the palm.

Movements of Thumb: Abduction and apposition are both performed with less power than on the left. The grip of the right hand is slightly less than the left. Flexion, extension and all other movements of the arm, wrist and hand are properly performed, but on the whole the strength is slightly diminished.

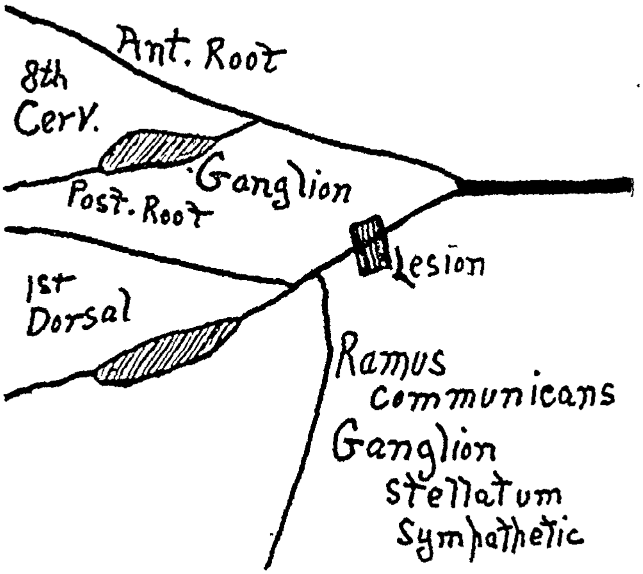
Electric Examination: Reactions are prompt with both currents to equal current strength in all arm and hand muscles, except in the case of the right musculus opponens and abductor.

Pollicis: In these two there is a marked quantitative change to both currents, and the response to both faradic and galvanic is slower than the normal type.

Sensation: No objective disturbance of any kind is present anywhere in the body, except along the ulnar border of the right arm. At the first examination I found a narrow area of sensory change beginning at the internal condyle, and extending in a straight path not over one-half inch wide at any point to the pisiform bone. In the upper third of this narrow area there was thermo-anesthesia; cold was often called warm, very hot was called warm, and occasionally even cold. Tested with the ether spray and cautery the results were similar. In the upper half of this dysesthetic area, or band, there was a considerable degree of analgesia. Throughout the entire area there was a hypesthesia, and in several spots the size of a dime complete anesthesia. With the probability of incipient syringomyelia in view, careful tests for dysesthesia elsewhere were made, and as was the case with the motor disturbance, none was found other than as herein indicated. After two or three weeks electrization, the thermo-anesthesia and analgesia became much less apparent, and indeed I may say that by repeated tests on different days I failed to elicit the marked departure from the normal type, so well seen when first examined. On one or two occasions, however, they would apparently recur, but in a more uncertain and negative manner than at first. On the other hand, the anesthesia, or at least the hypesthesia, was always manifest along the whole narrow band, but never above the elbow. There were no oculopupillar symptoms present. The reflexes were nowhere increased.

The salient features of this case then are: (*a*) Isolated atrophy of two thumb muscles, subacute in its beginning, showing, so far as the limited time of observation will permit any inference, no progressive tendency; (*b*) definitely localized dysesthesia.

The sensory disturbance present differs from the true dissociated sensory type of syringomyelia. In the latter, preservation of tactile sensibility is the rule, in this case hypesthesia prevails. It is true that even in syringomyelia there may be disturbance in the tactile element of sensibility. Roth found it in the proportion of 1 to 18, and considered it to indicate an invasion of the posterior tracts by the gliosis or cavity formation. When it occurs, therefore, we should expect it to be, and it really is, a late and not an early symptom, being due to the extension of the syringomyelic process. I am unable to find the presence of marked anesthesia as an early symptom of syringomyelia anywhere recorded. I also find but little reference to early syringomyelia, and find no case of it with such slight unilateral muscle atrophy, and such strictly localized sensory change as shown in this case. It appears to me rather difficult to picture a gliosis or cavity formation even in the incipient stage—so situated as to occasion the lesion peculiar to my case. Syringomyelia may, therefore, be excluded.



Suggested diagram of location of lesion. (After Buzzard.)

This case comes under the class of uniradicular palsies, so well described by Buzzard in *Brain*, 1902, where the meager literature of the subject is also cited. Six cases are here detailed, all of which involved one or more of the roots of the brachial plexus; some of the fifth and sixth cervical, others the first dorsal, and in one case the lesion appears to have attacked the fifth cervical and first dorsal, i. e., the upper and lower roots of the plexus. There was thus produced a partial Erb, and a partial Klumpke. The root involved in my case is the first dorsal, and evidently in such a way as to exclude the sympathetic fibers for the pupil.

It is difficult to understand why the atrophy should be confined to the two superficial thumb or thenar muscles, and why the little finger muscles at least should not also have been involved. The interossei, lumbricals and the long flexors of the hand are not exclusively supplied by the first dorsal, but receive their innervation in part from the eighth cervical. Kocher's table gives the eighth cervical complete control over the long finger flexor muscles, and the first dorsal, according to the views of the same author, controls all the small hand muscles. If we adopt this scheme of Kocher's, with which that of Bruns closely corresponds, but from which that of Edinger and Starr is at variance, we shall be able to understand why a lesion of the first dorsal root need not involve the long flexors of the fingers and hand.

It will be less easy to explain why the other small hand muscles should escape and the atrophy involve only the two superficial thumb muscles. It must be remembered, however, that it was stated that the whole right hand was weaker than the left, and although electric changes or atrophy could not be demonstrated in the hypothenar, interossei and lumbrical muscles, a certain degree of implication may still be present or may yet set in. The site of the lesion must be above the point where the ramus communicans of the sympathetic to the ganglion stellatum is given off, as no oculopupillar symptoms were present.

The absence of any increase of reflexes, so frequent in syringomyelia, may also serve to indicate that the cord itself is intact. The presence of sensory disturbance and the course of the affection warrant one, I think, in excluding atrophy of the Aran Duchenne type.

Now with reference to the sensory disturbance, the point is well made by Buzzard that there was no knowledge of any change in sensation on the part of the patients themselves, whereas in peripheral neuritis subjective sensory phenomena are the rule. Buzzard thinks that this absence of subjective sensation of numbness or tingling may prove a differential diagnostic point between root and peripheral neuritis. The character of the dysesthesia, furthermore, is allied to that experimentally produced by a severance of a single posterior root, and as has already been mentioned, different from that form seen in syringomyelia.

I quote from Buzzard the original words of Sherrington:

> 1. The disturbance of skin sensation produced in macacus by severance of spinal roots is to some extent a dissociative one.
>
> 2. In macacus the destruction of a single sensory spinal root, at least in the case of certain spinal nerves, entails in a limited skin area, much smaller than the total skinfield of the root, an abolition of heat sensitivity without abolition, but with some concomitant impairment of actual sensitivity.
>
> 3. In the skin of macacus the pain field and the heat field of a single sensory spinal root, at least in the case of certain spinal nerves, are each less extensive than is the "touch field" of the same root.

The changes in my case correspond closely to this description of Sherrington's, i. e., there was a small algesic and temperature field and a larger touch-field. The site of the lesion is in my case near the point of junction of the eighth cervical and first dorsal to form the outer cord of the brachial plexus, but attacking a single nerve only, viz., the first dorsal.

The lesion must be beyond the posterior root ganglion, as evidenced by the absence of herpes. The limitation of the atrophy to the two superficial thenar muscles, and, furthermore, the absence of any sensory changes in the zone of the first dorsal root above the elbow would seem to plead for a very small vascular lesion of some kind. The prodromal period in my case, or rather the pre-atrophic stage in which the only symptoms were pain and weakness, was rather longer than in any of the cases mentioned in Buzzard's paper, but it is my impression that the atrophy was present for a much longer time than the patient stated.

As to the character of the lesion I have nothing to offer that would not be entirely speculative. The only improvement has been the absence of cramps (which I never saw) and the decrease of the pain. The sensory changes became less marked and more variable, but the atrophy remains unaltered.

DISCUSSION.

Dr. H. T. Patrick, Chicago—I would suggest that this case was possibly an example of the local atrophy which affects most frequently the hand muscles of persons who are engaged in certain occupations. It is usually accompanied by pain. The cases nearly always recover. They are generally seen in just the kind of people Dr. Wolfstein has described—tall, slender, poorly nourished individuals. In my experience, it occurs most often in seamstresses and in girls who work at bookbinding, as well as in other occupations where there is a particular strain on a certain group of muscles. It is, perhaps, allied to some forms of writer's cramp or palsy. Very little can be found on the subject in the text-books. I do not offer this as a positive diagnosis in Dr. Wolfstein's case, but merely throw out the suggestion, as he did not mention this possibility in speaking of the diagnosis.

Dr. Wharton Sinkler, Philadelphia—The trouble was apparently of peripheral origin. I recently saw a stunted, undeveloped boy of fourteen, who worked hard at manual labor and was a heavy cigarette smoker. He got into a fight, and received a severe blow on the back of the hand. Quite a swelling developed, and subsequently there was a loss of power in the extensor muscles of the hand, with marked atrophy of the thenar and hypothenar eminences. In that case the trouble was undoubtedly of peripheral origin.

Dr. Albert E. Sterne, Indianapolis—I also was impressed with the idea that the trouble in Dr. Wolfstein's case was in all likelihood due to the occupation of the woman. Dr. Patrick's statement that these patients usually recovered is not in accord with my experience. Still, recovery often occurs. Three years ago I noticed that the ball of the first finger of my right hand, as well as the thenar eminence, began to shrink. This was accompanied by muscular twitchings, which became so violent that I could scarcely hold a knife. I worried a good deal about it, as there was also some pain, and in addition to this I had a localized pain on the left side of the head. If I had seen such a case in my office, I would unquestionably have kept in view the possibility of a gross lesion in the brain. At the Atlantic City meeting I took occasion to speak to Dr. Patrick about it, and he advised me to spend a month at the seashore. I took his advice, and the twitching and pain disappeared. It has since recurred in different regions, but has not been so persistent. In this connection I would recall that in my own paper I referred to this local neurasthenia as being vascular, due to overcirculation and overexcitation, and I am inclined to think that the case reported by Dr. Wolfstein might belong to the same category.

Dr. F. W. Langdon, Cincinnati—I saw this case with Dr. Wolfstein. At first glance, I was inclined to believe that it was one of early syringomyelia, but the later symptoms made me more doubtful, and finally I practically excluded that idea. Dr. Wolfstein's explanation that the symptoms were due to a root lesion I regard as very probable, more so than the explanations offered by those who have taken part in the discussion. An occupation atrophy could hardly be conceived of that would affect merely one or two muscles. The distribution of the atrophy and the sensory symptoms would also exclude traumatism, to which reference was made by Dr. Sinkler. I see no reason why there should be these objective sensory disturbances as the result of overworking a few muscles. I think the probabilities are in favor of the case being one of radicular palsy, and this view is strengthened by the cases of Buzzard referred to by the author. My experience with cases of muscular twitching has not been always as happy as that of Dr. Sterne in his own case. Some years ago I was consulted by a physician of 40, who had been overworked and somewhat worried. He complained of a loss of dexterity of the right hand, with twitching and numbness. After examining him, I advised him to spend a season at the seashore. This he did, and on his return his health was apparently restored. Shortly after he was found dead in his bathroom, death having been caused presumably by cerebral apoplexy. This shows that we can not always eliminate the presence of cerebral trouble, even if the local symptoms improve.

Dr. D. I. Wolfstein—The simple explanation of these symptoms naturally appeals to us, and we thought first of the existence of an occupation neurosis, but on account of the train of symptoms that developed and the peculiar sensory disturbances of the dissociated type, I believe that explanation of the case can be positively excluded. The woman's occupation was that of a general houseworker, and she did not spend much of her time at laundry work.

ACCIDENTAL PERFORATIONS OF THE UTERUS.*

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Accidental perforations of the walls of the uterus by instruments in gynecologic practice and in efforts to produce abortion are probably more frequent than the reports of cases would appear to show. The circumstances under which these accidents occur are generally such as would lead them to be passed over and the results which sometimes follow are often no doubt assigned to other causes.

Dr. Brothers of New York has been able to collect sixty-six recorded cases of accidental perforations of the uterus, of which seventeen died and forty-nine recovered.

The use of the sound and the curette in gynecologic practice is probably the most frequent cause of this accident in legitimate practice. The facility with which the sound can be used in exploring the interior of the uterus and in repositing a retrodisplaced organ is no doubt responsible for some of these accidents.

There are no means by which we are able to measure the resistance which the uterine walls may offer to the passage of an instrument, or to determine the ease with which the walls may be penetrated. It is well recognized that when the tissues of the uterus are much softened by inflammation or by degenerative changes in connection with disease that a curette or sound will pass through into the abdomen with so much ease that the fact may not be at once recognized, and it may be sometimes assumed that the depth of the uterine cavity is much greater than the facts will warrant, or it may be thought that the sound has passed into a fallopian tube. It is possible that the instrument has been diverted into the tube, but the probabilities are very much greater that the abdominal cavity has been entered.

When the walls of the uterus are apparently healthy they may be penetrated with greater facility than is generally supposed. This fact will be illustrated by a case related in this paper. While I have never had the accident happen in my own practice, I have always been apprehensive of it, and have been governed by a degree of care which has equaled that exercised in any work I do. There can be no doubt that examinations of the uterus by the sound are altogether more frequent than they should be. I am so certain that information as to the condition of the uterus can be better obtained by other means that I rarely use the instrument.

The curette is no doubt a very useful instrument in a certain class of chronic intra-uterine affections, and often indispensable, but at the same time a very dangerous one. I am quite sure that it is often used in an indiscriminate manner, and as a routine treatment in a great variety of uterine difficulties that could be better treated by other means with a greater prospect of permanent results.

The perforation of the uterine walls by the curette would not be so serious if it were not for the associated treatment which is so often regarded as essential when the curette is indicated. I refer to irrigations. If the uterus is perforated and irrigation is employed a considerable amount of infection material may be washed into the abdominal cavity and the chances of setting up a fatal peritonitis are great. The infection from the curette is serious enough, but when in addition to this the washings from the uterus are carried into the peritoneal cavity, the risk is greatly increased. It should be remembered that when the curette enters to an unexpected depth there is a great probability that the instrument has passed through the walls and the irrigation should be refrained from unless it can be absolutely demonstrated that no perforation has taken place.

Our attention is called from time to time to cases where simple curettage has been performed, followed by a fatal result. It may fairly be presumed that in some of these cases the uterus has been perforated and the peritoneal cavity infected without the knowledge of the operator. Indeed, we have known of cases where not only were the uterine walls perforated, but a considerable quantity of gauze was packed into the abdominal cavity through the opening in the uterus, which was only discovered on postmortem examination.

In April of this year a case came under observation which illustrates the ease with which a perforation of an apparently healthy uterine wall can be accomplished, and what needs to be done in cases of this kind.

Case 1.—*A woman about thirty years of age had acquired considerable skill and dexterity in producing abortion by introducing instruments into the uterus.* Suspecting herself to be pregnant or of the possibility of being pregnant, she, about 4 o'clock in the afternoon, straightened out a hairpin, then bent the end over on the main stem to make a close loop so as to avoid the sharp end, which she thought might injure the uterus. She then lay down and introduced the loop end of the hairpin into the uterus, allowing the opposite end to project from the os so that she might remove it at pleasure. After resting in bed two hours she attempted to seize the pin with thumb and finger to remove it, but it slipped from her fingers. She attempted to seize it again, and again it slipped from her and *disappeared within the uterus.* She at once summoned her doctor, who attempted to secure it with a pair of uterine dressing forceps, but failed. The woman was now in great fear of the results, and her physician finally persuaded her to go to the hospital, where I saw her the next morning. She was so certain that the hairpin was in the uterus or the abdominal cavity that she was willing to submit herself to any operation that was deemed necessary to secure it. The patient was anesthetized, the cervix dilated and the uterine cavity explored with a large blunt curette, but nothing could be felt. The abdomen was opened and the uterus freely exposed. The organ was perfectly normal in size and appearance and free from any evidence of recent or old inflammation or of adhesions. Almost directly at the apex of the fundus there appeared to be a small opening through which I could pass a small probe into the body of the organ. It was now apparent that the hairpin was somewhere in the abdominal cavity. The hand was passed freely in among the intestines, and after a little exploration the lower end of the pin was discovered high up in the left side of the abdomen, the upper end very near the diaphragm. The bent upper end constituted something of a hook which caught in the tissues and would not come down without using force, which might seriously injure the intestine or omentum. A pair of broad ligament forceps was clamped on the lower end of the pin to steady it so that the hand could be withdrawn from the abdomen and a second incision was made at the inner curvature of the ribs, through which I grasped the upper end of the pin, which was pressed against the abdominal wall by the forceps from below. I found the hook on the upper end of the hairpin was entangled in the omentum, and it required some little manipulation to set it free. The pin was removed and the abdominal wounds tightly closed. The patient made an uneventful recovery.

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* Read at the Thirteenth Annual Meeting of the Western Surgical and Gynecological Association, held at Denver, Dec. 28-29, 1903.

Case 2.—Several years ago a female doctor, whose practice consisted largely in producing criminal abortion, undertook the treatment of a case of supposed pregnancy. It was said that the woman had passed her menstrual period a few days. The doctor, in her testimony on the trial of the case, stated that she simply introduced into the uterus a soft rubber catheter in the evening, and the next morning on attempting to remove it found it had disappeared. There is reason to believe, however, that before introducing the catheter she had employed an uterine sound to explore the uterus. It was admitted that in searching for the catheter later in the day with a pair of long dressing forceps she caught something which she supposed to be the catheter, and on pulling it down she discovered—after eighteen inches of what proved to be small intestines were outside the uterus—the nature of the object which she had found.

A surgeon was called, but did not feel prepared to do an operation until the next morning. When the abdomen was opened the catheter was found among the intestines and eighteen or twenty inches of small intestine more or less separated from its mesenteric attachment. A resection and Murphy button were used, but the patient died on the operating table. It was claimed that the catheter itself perforated the uterine wall; on this point, however, we have no absolutely reliable information.

There can be no doubt that the uterine walls can be perforated with unexpected ease when in a normal condition, and with much greater ease in certain states of disease. It has been stated that the accident is of comparatively small importance and no serious results will come from it. While this may be true, at least to a certain extent, the admission must be restricted in view of the fact that of the recorded cases about 25 per cent. have proved fatal. Perforations with a sound which has been properly prepared for exploring the uterus will not generally be followed by serious consequences. Perforations with a curette are much more dangerous on account of the larger size of the instrument, and also on account of the possible laceration of the uterine tissue in the curetted area. If there is added to this an intrauterine irrigation the danger is greatly increased.

A few cases have come to my knowledge of perforation of the uterus by the curette followed by irrigation, and the operator, apparently not satisfied with the thoroughness of his procedure, packed a considerable quantity of gauze, which on postmortem was found in the abdominal cavity.

The treatment of accidental perforations of the uterus will depend on the nature of the instrument used. Unfortunately, the circumstances under which many of these accidents occur will often be a bar to proper treatment. In efforts at criminal abortion the ignorance or dishonesty of the operator will effectually interfere with a discovery of the condition of the patient until it is too late for an early operation to be of avail. In the cases which occur in legitimate practice the fear of censure or of malpractice, even if the accident is discovered at the time, will have its influence on the nature of the efforts made.

Dr. Brothers relates that in four cases of perforation with the curette in his own practice, three were successfully treated by rest and local application of ice, while in one the fundus was delivered through an anterior vaginal incision and the opening closed with catgut sutures.

Rosenfeld treated a case in a similar manner. Glaser and Kentman each mention a case of perforation with a curette which was treated by hysterectomy. Schwartz, while curetting after an abortion, perforated the uterus and packed the organ with gauze. The patient, after an attack of circumscribed peritonitis, recovered.

Queisner treated a case by tamponing the uterus, applying ice and giving opium. Guerard, Billroth, Man and Alberti each performed a laparatomy for the repair of perforation. In three of these cases the intestine had passed into the body of the uterus and in two the intestine was resected. All recovered.

If the perforation is small and made with clean instruments and if irrigation is not employed, rest and the application of ice will generally be followed by recovery with probably nothing more serious than a circumscribed peritonitis. If irrigation has been employed one of two courses of action will be necessary. If the infection is mild the treatment by rest and ice may be sufficient. If the infection is of a character to excite a septic peritonitis a vaginal hysterectomy with drainage will be indicated. In the milder form of infection there is danger of chronic inflammatory processes occurring in the pelvic connective tissue or peritoneum, leading to abscess formation and the train of sequences which so often attend chronic infection in this region, and will require the treatment usually demanded in such condition. If the perforation is more extensive or is made with a large size curette, the fundus may be delivered through an anterior vaginal incision and the wound in the uterus closed by sutures, or, as will happen in some cases of perforation resulting from a curettage preliminary to some operation on the uterus through the abdominal wound or by the vaginal route, the choice will be a suturing of the wound or a hysterectomy, as the conditions may indicate. As an immediate operation a hysterectomy is not often demanded unless the organ has undergone some degenerative change. It is certainly not good surgery to allow an opening of any considerable size to go unrepaired, not only on account of the danger of infection of the peritoneum, but on account of the danger of the intestine escaping through the opening in the uterus and becoming strangulated, as actually occurred in several cases.

Influence of Acute Infectious Diseases on Leukemia.—An article by Neutra, issuing from Schlesinger's clinic at Vienna (*Zeitft. f. Heilkunde*, xxiv, No. 11, 1903), discusses the probable cause of the reduction in the numbers of white corpuscles noted in leukemia during and after an intercurrent infectious disease. This reduction is always accompanied by an aggravation of the general condition, and the writer, Neutra, agrees with Fränkel that it is probably due to the disintegration of the white corpuscles by the toxins of the disease, and not to any improvement in the leukemic process. He has found 19 such cases on record.

THE CHEMISTRY OF THE MEDICAL SCHOOL.

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In the present condition of rapid growth and development in our medical schools, one of the vexing problems which has come up for solution is with reference to the kind and amount of chemistry which should be taught. It is evident to any one who takes the trouble to look that the methods and concepts of somewhat advanced chemistry are becoming more and more the property of the real medical worker, and to-day we hear from the clinician terms which but a few years ago were heard only in the laboratory of the investigator in pure chemistry. Beyond question, the medical man is called on to learn more chemistry and, seemingly, a new kind of chemistry.

Not long ago, in response to the question as to the kind of chemistry which should be taught to medical students, it would have been thought sufficient to answer "medical chemistry," and this somewhat vague term would have been looked on as covering all that is necessary. In giving the proper definition to the term the answer may be satisfactory, but what has usually been understood as medical chemistry is, in my judgment, very far from being the thing which the student needs most. The learning of isolated "tests" for the metals and acids of inorganic chemistry, or the memorization of a long rigmarole of complex organic formulas which may be recited parrot-like, does not constitute a kind of chemical training which is very valuable or very lasting. It brings little help in time of need. The chemistry which prepares for the understanding of the why is far more important than all this mechanical routine. The student must learn some tests, of course; he must, as a matter of necessity, learn how to recognize sugar, albumin, bile or indican, chlorids or phosphates, but this is the merest modicum of knowledge in medical chemistry, and of not much avail for the deeper understanding of things.

The modern physiologic and pathologic chemistry, although apparently concerned almost wholly with organic or organized substances, is really based largely on general and physical chemistry. This can be seen by a study of the journals rather than of the text-books, which still labor under the old limitations. The problems of immunity and toxicity are largely fermentation problems, and these are gradually finding their solution through the study of the inorganic ferments. It seems probable that formulas expressing the reactions of toxins and antitoxins may be written in accord with the mass-action laws; that is, that here as well as elsewhere reactions are found to take place in a way which may be accounted for through some of the generalizations of modern physical chemistry. The old question of the conditions under which uric acid precipitates before excretion is also being attacked from the standpoint of the mass-action law and the dissociation hypothesis, and already certain tangible results have been secured. The blood contains over 20 per cent. of organic substances and less than 1 per cent. of mineral matters or salts, and we are taught to attach much importance to the former and almost wholly overlook the latter. Yet the constancy or variations in the electrolytic components or ions of this 1 per cent. may have far more to do with the physical well-being of the body than the constancy of the 20 per cent. The means of maintaining constancy in these relations through the activity of the kidneys is very largely a problem of physical chemistry, and for a real understanding of the enormous literature which is accumulating on the cryoscopic and conductivity methods in the study of the blood and of the urine, one must go back to the first principles of the new general chemistry. We have acres of clinical experience proving the value of traces of lithium salts in the solution of uric acid concretions, yet a few lines and two or three simple equations in some of our recent special works and journals, have been sufficient to show the absurdity of the whole thing.

New ideas and new modes of expression from the terminology of physical chemistry are coming into the medical literature. We hear much of the toxicity of ions, the osmotic pressure of ions, the applications of the dissociation theory to the theory of disinfectants, etc. The work of Arrhenius and Madsen, referred to in a recent number of THE JOURNAL,[1] is a good illustration. These men have made an effort to apply the mass action and dissociation formulas to the Ehrlich serum antitoxin theory, and while the efforts may not be wholly consistent or successful, they are extremely interesting and suggestive, as they point out a method of controlling or testing the results provided for by the theory. Whether we accept the whole of the present ion theory or not, the terms employed have a meaning and have come to stay. The facts back of the terms are of still greater importance, and to understand them the student needs a thorough groundwork in inorganic and general chemistry. He must have correct notions of stoichiometry, which are best secured through the solution of chemical problems; he must have a practical knowledge of quantitative chemical relations, such as is most readily learned through work in volumetric analysis; he needs some work in elementary qualitative inorganic analysis; but not much, as the applications of such work in medicine are not frequent, and the disciplinary value of the short routine courses which can be given is not great. Finally, along with a general discussion of the more important elements and some of the compounds, he must have illustrated the principles of osmosis, diffusion, osmotic pressure, specific heat and the simple theory of indicators. This paves the way for the elements of organic chemistry, and the whole of the work is preliminary to the study of physiologic chemistry proper.

For the last work, then, which is everywhere admitted as essential in the medical course, the student absolutely needs the training in organic and general chemistry, including some of the most important concepts of that part which is now dignified by the name of physical chemistry. The course in organic chemistry need not be very long, but it must be concise and methodical. The work in Remsen's book is a good illustration as distinguished from that in some of the large manuals for medical students. In one case we have knowledge, in the other the appearance of knowledge. To suggest the value of organic chemistry in lines usually slighted by medical students recall the voluminous literature on the so-called diazo reaction of Ehrlich; a little accurate knowledge of the conditions of this reaction would have saved much useless speculation.

In fine, the medical student needs *modern* chemistry if he is expected to keep up with the advances in other lines and to profit by them. As medical school courses change, and general chemistry becomes a premedical study to be taken before the student begins his professional work, care will have to be observed by the authorities of the medical schools to see that the credentials brought cover the right ground. In the future of medicine the higher chemistry will undoubtedly play an important part. These lines are written mainly with the object of calling attention to the relatively great value of general and physical chemistry in this work.

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[1] THE JOURNAL, March 5, 1904, p. 651.

TROPICAL CUTANEOUS MYIASIS IN MAN.

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WASHINGTON, D. C.

At the present time, when the construction of an isthmian canal has turned the attention of medical men toward the tropical diseases of the Isthmus of Panama, I believe it will be of both scientific and practical value to bring forward a few observations I made on the isthmus, in regard to one of the most troublesome and common diseases of that locality.

Tropical cutaneous myiasis of man is caused by the *Dermatobia noxialis,* sometimes called the *Gusano-peludo* or *Muche.* Since 1749 numerous authors have treated the subject, but usually from the entomologic standpoint. Among the authors may be mentioned Linnaeus,[1] Say,[2] Clark,[3] LeConte,[2] Verrill, Goudot, Matas, Blanchard,[4] Railliet,[5] and others.[6] Blanchard's[4] article is the most extensive and complete. It contains a synopsis of the writings of thirty-one authors, extending from 1749 to 1889, and gives a detailed description of numerous larvæ which he has examined. Dr. Matas[7] published an article on the larvæ, which he took from the epidermis of two of his patients.

Cutaneous myiasis, as a result of the deposition of the eggs of the botfly, though common in animals of the temperate climate, is rare in man. In the tropics, no other disease is so common to man.

The *Dermatobia noxialis* belongs to the family *Oestridæ,* which includes the botflies. Various species of the family attack the horse, ox, sheep, rabbit, dog, monkey and man. In the horse, the disease is caused by the *Gastrophilus equi,* or botfly, the larvæ of which develop in the stomach and the intestines. In the sheep, it is due to the *Oestrus ovis,* and the larvæ develop in the nose and the adjoining cavities. In the ox, the disease is due to the *Hypoderma lineata* and *bovis,* and is a cutaneous myiasis. In the rabbit, it is due to the *Cuterebra cuniculi,* and results in a cutaneous myiasis. In man, monkey and dog of tropical America, it is caused by the *Dermatobia noxialis* and *cyaniventris,* and produces a cutaneous myiasis. Other forms of botflies, however, do produce a myiasis in man and dog, and at times the ox and sheep botflies attack man.

GENERAL DESCRIPTION OF THE PARASITE OF THE ŒSTRIDÆ FAMILY.

These parasites pass through three stages—adult. larval and pupa. The adults are heavy-bodied insects, somewhat resembling the fly and the bee. The larvæ are thick, fleshy grubs living a parasitic life in the bodies of various animals; they are composed of twelve segments more or less covered with rows of large black spines. The cephalic and caudal segments are provided with breathing tubes. The larvæ leave the host, then enter the earth, where they remain a certain length of time and finally emerge as flies.

DESCRIPTION OF THE DERMATOBIA NOXIALIS (FROM BLANCHARD).

Of the adult stage nothing is known other than it is a fly. "The larva is grayish white, pyriform in shape, 14 mm. long, 5 mm. thick, and is composed of seven distinct segments and a long caudal extremity. The anterior part of the first or caudal segment is invaginated and has hooked mandibles, which are scarcely visible. The second, third and fourth segments are covered with fine spines, scattered without order, and most abundant on the anterior half of the second segment. On the posterior border of the fourth segment there is a crescentic row of large black spines or hooks, nineteen in number, and confined to the dorsal surface. The anterior border of the fifth segment is capped by a girdle of large black hooks, twenty-five in number, which correspond dorsally with the half circle above. On the posterior border of this segment there is a dorsal demigirdle of nineteen hooks, similar to that on the fourth segment. The surface of the segment is covered with a small number of spines. The anterior border of the sixth segment has a girdle composed of twenty-three hooks, while the posterior border has a demigirdle of fourteen hooks, which are confined to the dorsal surface like the preceding demigirdle. The spines on the surface of this segment are few in number. On the seventh segment there is but one row of hooks, twenty-two in number, forming a complete girdle on the anterior border of the segment. The small spines and half girdles are missing in this segment. Following the seventh segment, the lines of division between the segments are very indistinct, the portion directly beyond is without spines or hooks, but what would correspond to the tenth, eleventh and last segments are covered with small spines." This description corresponds to the parasites found in my cases.

MODE OF INFECTION.

The method by which the parasite gains entrance to the body of its host is still clouded in mystery. There are, however, three theories. First: That the fly lays the egg on the skin, where it hatches and the larva bores its way into the skin. This is the theory most generally accepted. Second: The fly lays the egg into a wound previously made by her in the skin, where it hatches, and the larva bores deeper. Third: Recently it has been suggested that the eggs are carried into the mouth, where they hatch; that the larvæ attach themselves to the mucous membrane of the esophagus and pharynx, remaining there for a time to disappear, wander through the tissues of the body and finally locate in the subcutaneous connective tissues. This theory is based on the investigations of Dr. Curtice[8] in the cutaneous myiasis of cattle, a disease due to the *Hypoderma lineata,* a species closely allied and belonging to the same family as the *Dermatobia noxialis.*

A STUDY OF CASES.

In March, 1900, I was physician in charge of a party of seven whites and twenty-five natives, then exploring for a canal site at Caledonia Harbor, Isthmus of Darien. Of the seven whites, six became hosts of the parasites, and had a total of nineteen lesions. One white man who never took off his clothing escaped. Another, equally opposed to removing his clothing, had one parasite located in his ankle, which he constantly exposed to the attacks of the fly by going around in slippers and pajamas. Of the five remaining whites, all had at least two parasites, the writer having five. Among the natives, no record was kept as to the number of lesions, but it was noticed that, although they were in no sense immune from attacks of the parasites, they were seldom the hosts of more than one or two of the larvæ at the same time. The white members of the party were first exposed to the attacks of the parasites March 14, 1900. April 7, 1900, several complained of small boils, which later proved to be parasitic. The locations of the parasitic tumors in the whites were as follows: ankle 4, elbow 2, abdomen 3, thigh 2, calf 2, upper arm 2, buttocks 1, back 3.

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[1] Linnaeus: Systema Natura.

[2] Say: Complete writings, edited by LeConte.

[3] Clark: Rees, Cyclopedia, article on "Bots."

[4] Blanchard: Sur les *Oestrides americaines* dont la larvæ vit dans la peau de l'homme. Annales de la Societe Entom, de France, vol. lxi, p. 109, 1892. Note additionelle sur les *Oestrides americaines* dont la larvæ vit dans la peau de l'homme. Bull. Soc. Entom. de France, Paris, vol. xiv, p. 209. Also Nouvelles observations sur les larvæ de *Dermatobia noxialis.* Bull. Soc. Centr. de Med. Vet., Par., v. 50, n. s., vol. xiv, pp. 527-538, 1896.

[5] Railliet: Traite de zoologie medicale et agricole, Paris, 2e edition, 1895, voir page 779.

[6] Insects affecting domestic animals, U. S. Dept. of Agriculture, Bureau of Entomology, Bulletin No. 5.

[7] Matas, R.: Insect Life, vol. i, p. 76, 1889.

[8] Curtice (Cooper) Journal of Comparative Medicine and Veterinary Archives, vol. xii, No. 6, 1891.

The deposition of the eggs on the skin usually occurs while the individual is in bathing, as has been attested by numerous observers and victims. That the individual attacked is ever aware of the exact moment of the deposition of the eggs, must be viewed with doubt. Few of those stung in a tropical country pay any attention to such a trifling and common occurrence as a sting, much less remember the exact location with reference to the development of a boil sixteen days later. The period of incubation is from sixteen to twenty-three days.

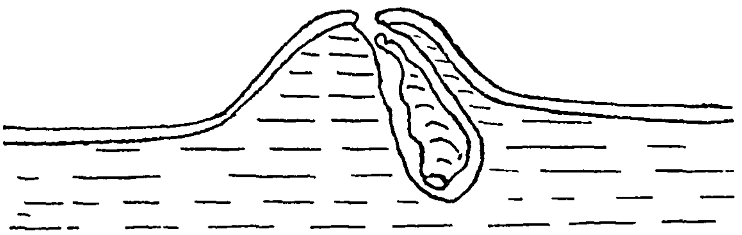

Fig. 1.—Diagrammatic drawing of parasitic tumor giving natural size of tumor and parasite after two and a half weeks' growth, and showing oblique position of parasite, capsule, central opening and relations.

The first indication of the disease is denoted by the appearance of small red papules, about the size of a pin head, each of which has a clear, well-defined, minute central opening. For about a week no symptom other than an increase in size of the papule with a corresponding increase in size of the central opening, is manifest. The patient usually imagines it to be, and the growth strongly resembles, a boil. On the seventh or eighth day after the discovery of the papule, a sharp pain, lasting a few minutes, occurs during the night, and is not unlike that which would be produced by a gimlet boring into the flesh. This is repeated at intervals of an hour or more. During the day no inconvenience results, but during each night the larva becomes more and more active as it increases in size and the tumor continues to grow. No one who has not been the host of one of these developing parasites can imagine the excruciating agony which it nightly produces. The tumor is now about the size of a twenty-five-cent piece, and the central opening one-sixteenth of an inch in diameter. At the end of a week of larval activity or two weeks from the first indication of papule, the patient becomes desperate and procedures for expulsion are at once instituted. In no cases under my observation has the larva remained in the subcutaneous connective tissue of man more than two and one-half weeks. The activity of the larva, the rapid growth of tumor, and progressive enlargement of the central opening, would lead to the supposition that if left alone it would make its own exit in a few days to enter the pupa stage. When expelled after two weeks' growth, the larva is from one-half to five-eighths of an inch in length. They differ in form according to the situations in which they develop. Those developing in portions of the body well covered with muscular tissue show a gradual tapering from the cephalic to the anal extremity, while those developing over bony prominences, like the ankle, have a marked cephalic bulb and a long caudal extremity.

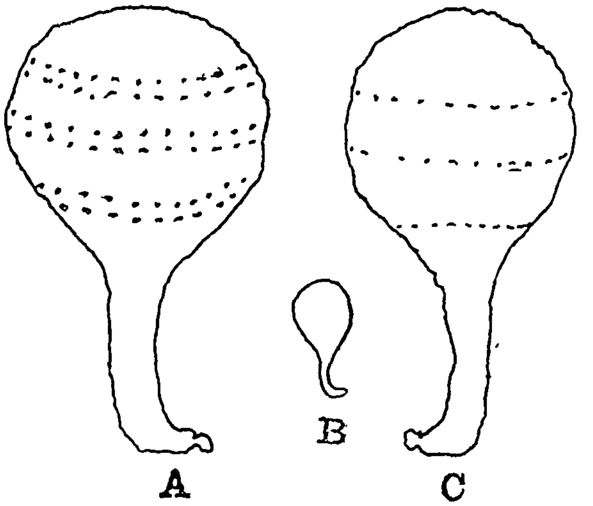

Fig. 2.—*Dermatobia noxialis;* larva. Shape of parasite when developed over bony prominences. A. Dorsal aspect showing double rows of spines. B. Larva, natural size. C. Ventral aspect showing single rows of spines.

TREATMENT.

As the parasite or larva is firmly attached to the tissue in which it is located, it is best and, indeed, necessary to institute some preliminary procedures, causing the parasite to lessen its hold before attempting manual expulsion. As an abundant air supply is necessary to the life of the developing parasite, this is shut off by closing the central opening in the parasitic tumor with adhesive plaster, cotton and collodion, postage stamp, tobacco leaf or other measures. After twenty-four hours the larva is thoroughly asphyxiated, the plaster is taken off, and only slight pressure is necessary to cause its expulsion. Ulceration, abscess and fatal results mentioned by some writers and attributed to this parasite are due to the improper treatment, and

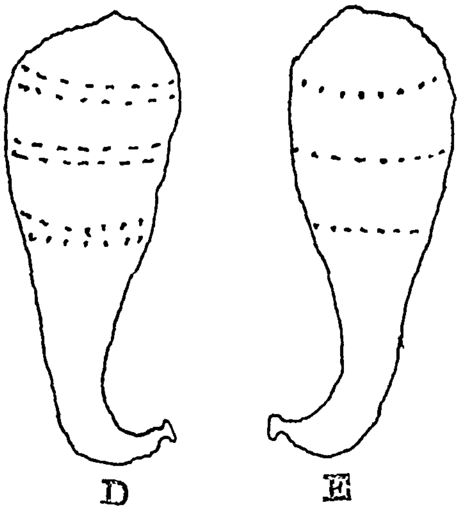

Fig. 3.—*Dermatobia noxialis;* larva. Shape of parasite when developed where muscular tissue is abundant. D. Dorsal aspect E. Ventral aspect.

are the result of forcible attempts at expulsion, without asphyxiation of the parasite. In these cases the larva is crushed and only partially expelled, the surrounding tissue is bruised and the capsule inclosing the parasite is broken down. The portion of the parasite remaining undergoes decomposition, germs enter and an abscess is the result.

SUMMARY.

1. Cutaneous myiasis in Darien is usually due to the *Dermatobia noxialis*.
2. Man and dog are host by preference. The *Dermatobia noxialis*, though not confining its attacks to man alone, can not be called an occasional parasite of man, as it attacks all who are properly exposed.
3. White-skinned races are more susceptible to the disease than the darker races.
4. The period of incubation is from sixteen to twenty-three days, from exposure to the development of the first symptoms.
5. Larvæ differ in shape according to anatomic location.
6. Grub or larva, if left alone, will not produce injurious results. Abscess and ulceration are the results of attempted expulsion without proper preliminary treatment.

CARCINOMA OF THE LUNG; PANCREATIC CYST.*

W. W. GRANT, M.D.
DENVER.

I report two cases of carcinoma of lung because of special interest attached to each—one recurring after an unusually long interval, and having at one time coincident tubercle bacilli, and while occurring several years ago is worthy of record; the other recently, and seemingly primary.

J. M. D., aged 48, Davenport, Iowa, school teacher. Personal and family history good. In February, 1894, had a dry cough. By fall the cough had increased and weight diminished. At this time Bierring, the pathologist at the Iowa University, found tubercle bacilli in the sputa. He went to Santa Fé, New Mexico; returned in the spring of 1895, having gained fifteen pounds, with the disappearance of bacilli. In June, 1895, he was examined by me in consultation with his brother, Dr. De Armand of Davenport. He had resumed his work, was pale, suffering much from dyspnea on slightest exertion, cough dry and expectoration slight. Slight circumscribed dullness was manifested about bifurcation of right bronchus, with some roughness in respiration. With this condition and history I thought, with all others who had examined him, that he was suffering from tuberculosis. In the fall of 1895 he went to Phoenix, Ariz., and lost weight and strength rapidly. Glandular enlargement of neck, axillæ and head, I was now informed by letter, was conspicuous, which caused me to suggest to his brother that the disease was malignant. He then informed me that six years before the left nipple was excised on account of a persistent ulcer, which was caused, it was believed, by a suspender buckle. This cleared up the history of the case, for it was undoubtedly a carcinomatous ulceration, though the interval of secondary infection was unusual.

He died June 2, 1896, after several months of extreme suffering from asphyxia. Postmortem by Dr. W. L. Allen of Davenport: effusion in both pleural cavities. Left lung in condition of atelectasis; right lung partially so. No evidence of tuberculosis. First bifurcation of left bronchus was surrounded by a fibrous mass, constricting the tube and completely excluding air. Same condition at same point of right lung, but permitting a little air to enter the lung. Pathological examination by Bierring showed the disease to be undoubtedly carcinoma. The coincidence of tuberculosis with carcinoma of lung or bronchial tubes has been repeatedly observed, but its existence and disappearance, as in the foregoing case, and the interval of at least four years from the excision of the nipple (no glands being removed) to the appearance of glandular infection and cough, make a history of unusual interest.

Shaw[1] reports a case of primary carcinoma of lung, and notes the similarity of tuberculosis in certain phases of the history. More recent cases are reported.

Mirklen and Girard[2] report a case constricting right bronchus, close to bifurcation. In thirty-one autopsies of carcinoma of lungs by Wolf, thirteen were complicated by tuberculosis. A great majority of cases of lung cancer are in men.

The second case is A. V. Rider, Davenport, Iowa, aged 57, railway engineer. He was in a collision in January, 1902, and suffered, he says, a fractured rib (left side), and from this he dates the beginning of his illness. May 14 he was seen by Dr. De Armand, who observed congestion of larynx and hoarseness, but did not regard his condition as serious. He continued to grow worse and Dr. De Armand examined him more thoroughly, and believed the case malignant. On June 4 he was seen by Dr. Allen. Paralysis of vocal cords and suffering from severe asthmatic symptoms, temperature normal and pulse 80. On June 22 I was passing through Davenport and was asked by Drs. De Armand and Allen to examine the man. He was suffering extremely from dyspnea, with loud crepitant and sonorous râles, and mucopurulent expectoration abundant. No bacilli; had lost thirty or forty pounds in the last three months. Dr. De Armand called my attention to a hard growth deep in the neck on left side of trachea, with fixed point in chest. No glandular enlargement and no pain. I had no doubt he was suffering from carcinoma of lungs or bronchi.

He died asphyxiated on June 25. Postmortem by Dr. Allen, who writes me that he removed a large, hard, irregularly shaped mass involving the bifurcation of bronchi, partially enveloping esophagus and aorta, with apparently some connection with connective tissue of anterior mediastinum. The lungs in the vicinity were involved and small nodules scattered through both lungs. There was also a prolongation of the growth into the neck on the left side. This was the mass felt on deep palpation of the neck on June 22.

Postmortem showed no disease whatever of stomach, but in the duodenum was a circular scar involving mucous and muscular coat with some narrowing of the intestine, indicating a perfectly healed ulcer.

There were no adhesions between costal and lung pleura, or other evidence that the railway accident had injured the lung at all.

The history and condition did not indicate a fractured rib. A section of the pathology was sent me, and examined by Dr. W. C. Mitchell with the following result:

"All of the specimens of tissue sent me proved to be carcinomatous, the areas surrounded chiefly by fibrous tissue; one specimen was evidently a lymphatic gland with numerous foci of carcinomatous cells."

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* Read at the Thirteenth Annual Meeting of the Western Surgical and Gynecological Association, held at Denver, Dec. 28-29, 1903

[1] British Med. Jour., June, 1901.

[2] Presse Médicale, June, 1902.

I received no specimen of the intestinal lesion, but Dr. Allen writes that section of it did not reveal carcinoma cells. While cases of primary carcinoma of the lungs are now and then reported, they are rare, and I do not present this as a convincing one, yet unless there was some error concerning the duodenal lesion, it seems probable that it originated in the bronchial or lung tissue. The patient told me that he had never suffered pain, but about a year before the fatal illness some indigestion of short duration, which was, probably, caused by the lesion of the duodenum disclosed by postmortem.

I have nothing to offer for the relief of this very distressing condition, whether primary or secondary, unless it should come from the application of the Roentgen rays.

For the clinical history of the following case of pancreatic cyst, prior to being referred to me, I am indebted to the attending physician, Dr. T. B. Gormly of Windsor, Colo.

Mrs. C. C. L., aged 37, wife of a farmer, youngest child 10 years old. Personal and family history good. Never before had any serious illness. Was taken suddenly March 3, 1903, with severe epigastric pain, for which a hypodermic of morphia was given. Temperature normal, pulse 120. Patient very fat, weighing over 200 pounds. Next seen April 4, when pulse was 90 to 108, temperature 100.5, and pain and tenderness in the epigastrium, and extending to the left, persisting. Seen again April 19, suffering much from gas in stomach and indigestion, with occasional vomiting; pulse 120, temperature normal, but losing strength and flesh rapidly. Palpation showed tumor in the left upper quadrant. Stomach rejected food and rectal alimentation commenced and continued from this date, during which time tumor increased in size; temperature varied from 100 to 100.5, being on one occasion 101, and pulse 115 to 125. On May 8 advised exploratory section. On May 18 patient reached Denver and was placed in my charge. At this time her temperature was 97.5, pulse 104. A large, smooth, oval, immobile tumor was easily outlined, occupying epigastrium and left hypogastrium, extending downwards one inch below horizontal line from the umbilicus, and one and a half inches to right of middle line from ensiform cartilage to umbilicus. The abdominal wall was so thick from fat that fluctuation could not be detected. Monro says: "Almost all patients are markedly fat."[3]

No diarrhea, no previous examination of urine, but no sugar nor albumin now in urine. Blood examination by Dr. W. C. Mitchell showed it to be practically normal.

She has had no fall nor injury. No jaundice, though a slight staining of the conjunctiva exists. No history of gallstones. From a careful consideration of the clinical history, and the differential diagnosis as to adrenal, kidney, gall bladder and omental cysts, and especially hydatid of the left lobe of liver, I concluded it was a pancreatic cyst. This opinion was shared by Dr. J. N. Hall of Denver. At the same time it must, at present, be admitted that no absolutely positive diagnosis can be made without operation. Aspiration for diagnostic purposes is often more dangerous than incision, so I determined to operate, and May 23, at St. Luke's Hospital, made an incision three inches long in the middle line from umbilicus upward. The wall was nearly three inches thick in fat. The sac was adherent to the abdominal peritoneum, which was quickly opened, and at least a gallon of chocolate-colored liquid was evacuated. Further examination with fingers and long dressing forceps showed that the cavity included the lesser peritoneum, extending to the left lumbar costal angle. The sac was thoroughly washed out with warm salt solution, and a six-inch rubber drain half an inch in diameter with shoulder at inner end, inserted. There was a free serosanguinolent discharge, with some pus, for a day or two. The discharge diminished rapidly and changed, being more purulent with thick dark-colored material, which I regarded as due to sloughing, and which ceased at end of first week. The parts were now contracting and closing on the tube tightly so it was partially withdrawn, and three inches cut off. The day after operation the temperature was 100.5 and pulse 108. From the third day until date of discharge, on June 16, twenty-four days after operation, the temperature ranged from 97.5 to 98.5 and pulse from 80 to 100. Before discharge a small short drainage tube was inserted, and the wound closed permanently in ten days. She suffered greatly from dyspnea before operation. The digestive and gaseous disturbance continued severely for two months. Her digestion is now very good and strength and weight have improved in marked degree, and except for tingling and some numbness in hands and feet, which is disappearing, she writes me that she considers herself quite well. The contents of the sac were examined and a large number of fat, blood and pus cells were noted. Trypsin was absent, as usual in large cysts. Feces were not examined. The suggestion to open the cyst in the costo-vertebral angle, because shorter and more direct, and more dependent, therefore favoring more perfect drainage, is a good one, and in a future case I should do it, but should make the anterior "incision" first, both to confirm the condition and to facilitate the posterior operation, closing the anterior incision at once, or within a few days.

The cause of pancreatic cyst is doubtless due usually to obstruction of the pancreatic duct by stone, as suggested by Senn, and endorsed by some other observers; the obstruction being due to calculus or interstitial pancreatitis. Most writers agree that hemorrhage is not a primary cause of cyst, though admitting that it is at least a secondary phenomenon, and itself may be due to obstruction of one or both pancreatic ducts. Stone in the common bile duct, by closing the duodenal orifice of the pancreatic ducts, is an admitted cause. Lloyd says that effusion into the lesser peritoneum has been mistaken for pancreatic cyst, but the mistake is improbable when one remembers that this effusion, independent of pancreatic disease, is rare, and is due usually to injury, and the injury which produces this will generally damage the pancreas. It is entirely improbable from its location that the pancreas can be seriously injured without affecting other parts, and effusion into the lesser peritoneum as a consequence of pancreatic disease is common. The tail of the organ is believed to be the most common seat of cyst, and the head more frequently affected in carcinoma. Cases of cyst have been reported which presented no evidence of obstruction by calculus. No satisfactory evidence of stone exists in the case I report. The belief that inflammatory conditions will result in hemorrhage and cyst is justifiable.

Opie has demonstrated that the injection of healthy bile into the pancreatic duct of animals will produce hemorrhage and fat necrosis. Infected gall bladder and ducts will, through the pancreatic duct, infect the pancreas. Hemorrhage is common in icteric cases, and the statement that pancreatic hemorrhage is more common when the jaundice is due to pancreatic obstruction than when it is due to gallstone obstruction, is a rational one. Blood condition is the probable explanation. Though diabetes is common without disease of the pancreas, Opie has demonstrated that total destruction of the pancreas is followed by diabetes, but partial destruction is not. Investigation tends to prove that the latter is due to the fact that the islands of Langerhans, certain secretory cells of the gland, are not destroyed. When diseased or destroyed, diabetes results.

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[3] Jour. A. M. A., 1902, vol. xxxix, p. 809.

Robson and Moynihan state that free fat in the feces is more common than sugar in the urine, the latter not being present in most of the reported cases, and when found, Flexner shows, was only in the first few days of the history. Robson says with the history of indigestion, sugar in urine, fatty diarrhea, loss of flesh and bronzing, pancreatic disease exists; also that acute epigastric pain, followed by a circumscribed inflammation, tenderness and tumor, with indigestion, is strongly indicative of pancreatic cyst. Without an intelligent clinical history the diagnosis is guess work.

A review of reported cases and literature shows convincingly that the disease is essentially surgical, and that delay in operating is as dangerous and fatal as in appendicitis. The gangrenous cases can only be saved by promptly opening the abdomen and draining. Formerly and recently reported cases[4] by Woolsey, which seemed unfavorable for operation, amply attest this.

The general suggestion of treatment of the sac is to dissect it out if small, but in the case of a large sac this attempt is manifestly unsafe and dangerous. The extensive adhesions make it exceedingly difficult and extravasation of pancreatic juice or septic material would probably destroy the patient.

Several patients have died from this treatment; while to attach the sac to the abdominal peritoneum if not already adherent, and drain is safe, and undoubtedly the best treatment of the large cyst. Pancreatic juice out of its normal channel produces, as is well known, fat necrosis. Pancreatic disease often simulates intestinal obstruction, and the statement may be safely accepted, that if the surgeon opens the abdomen, and does not find obstruction or perforation of the stomach, but does observe fat necrosis, the pancreas is, in all probability, the source of the trouble. The small number of cases reported, and the limited experience of the profession in the treatment of this disease, will, I trust, secure your indulgence of the extended remarks.

TAHITI FROM A MEDICAL STANDPOINT.

N. SENN, M.D.

Head of the Department of Surgery, Rush Medical College, in Affiliation with the University of Chicago

CHICAGO.

(*Concluded from p. 889.*)

PREVAILING DISEASES.

The average temperature of the inhabited part of the island, which can not be much less than 78 to 80 F., has a relaxing influence on the natives, and much more so on the small contingent of whites. The Europeans and Americans find it necessary every three to five years to seek for a few months a cooler climate to restore their energies and vigor. The government officials and officers are not obliged to serve for more than the same length of time, when they are relieved. It is this relaxation which, to a certain extent at least, is responsible for the great mortality of comparatively mild acute infectious diseases and the acuity of pulmonary tuberculosis among the natives. Tuberculosis of the lymphatic glands, skin, bones and joints appears to be extremely rare. The moisture-laden atmosphere and the suddenness with which the cool land and ocean breezes set in after the heat of the day is conducive to the development of rheumatic affections, which are prevalent in all parts of the island, more especially during the rainy season in midwinter. The same can be said of bronchial affections and pneumonia.

The free and unrestrained intercourse among natives accounts for the rapid spread of tuberculosis and acute infectious diseases among the entire population and from island to island. The sanitary commission, now engaged in efforts to reduce the mortality of the natives, will establish rules and regulations which will have for their object the prevention of dissemination of acute as well as chronic infectious diseases, will undoubtedly accomplish much toward the preservation of the race, but these officers will meet with stubborn opposition on the part of the natives when attempts are made, in their interest, to curtail their personal liberties. The ties of relationship and friendship among the natives are very strong, and become most apparent in case of misfortunes and sickness.

Smallpox breaks out almost every year and claims its share of victims. Vaccination is supposed to be compulsory, but the natives are inclined to escape it. Vaccination is done at the Military Hospital for all natives who can be induced to submit to it. Like in all tropical countries, tetanus is prevalent. The small native pony is found everywhere, and as the rural natives are all barefooted and spend much of their time in the jungles in impregnating the flower of the vanilla bean and gathering fruits, wounds prone to infection with the tetanus bacillus are of frequent occurrence. Malarial diseases are comparatively rare, although the plasmodium-carrying mosquitoes are numerous and aggressive, and children in the country districts are nude and the men limit their clothing to the wearing of a breechcloth. No case of typhoid has been known to have originated in the island. The exemption from this disease, so widely spread over the entire globe, in this island is due entirely to an abundant supply of the purest drinking water supplied by the numerous mountain streams. Nearly all of the inhabitants live on the coast, near the outlet of a brook or stream, where consequently there is no danger whatever of water contamination. I found three cases of typhoid fever in the Military Hospital, members of one family, who had been brought there from one of the neighboring atoll islands.

Varicose veins, varicocele and hydrocele are very common. The absence of anything like a large ulcer in many cases of large and numerous varicose veins I attributed to the toughness of the skin of the bare legs. Venereal diseases are widespread throughout the entire island, and more especially in Papeete and the nearby larger villages. Syphilis appears to pursue in the natives a mild course, as I found few instances of the ravages of the remote results of this disease. I only saw one saddle nose caused by tertiary syphilis. Leprosy is not as prevalent as in the Hawaiian Islands, but isolated cases are found in nearly all of the islands belonging to this group, being more prevalent in some than in others. Segregation has never been attempted. The lepers mix freely with the members of their family and neighbors and are not shunned. I was informed that many of the lepers, much disfigured by the disease, seek an island where many of these unfortunates have founded a colony for the purpose of escaping from public gaze. Elephantiasis in its worst forms has taken a firm hold on the natives, especially the inhabitants of the nearby island of Moorea. There this disease can be studied in all its stages, from a slight enlargement of one of the extremities to colossal swellings, which, when the upper and lower extremities are affected at the same time, make it necessary for the patient to crawl on his hands and feet in dragging himself from place to place. Regarding elephantiasis as it exists in Tahiti and the other islands of the French colony, I will make use of a few extracts taken from a valuable paper on this subject by Dr. Lemoine, recently in charge of the Military Hospital, and published in one of the government reports.[1]

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[4] Annals of Surgery, November, 1903.

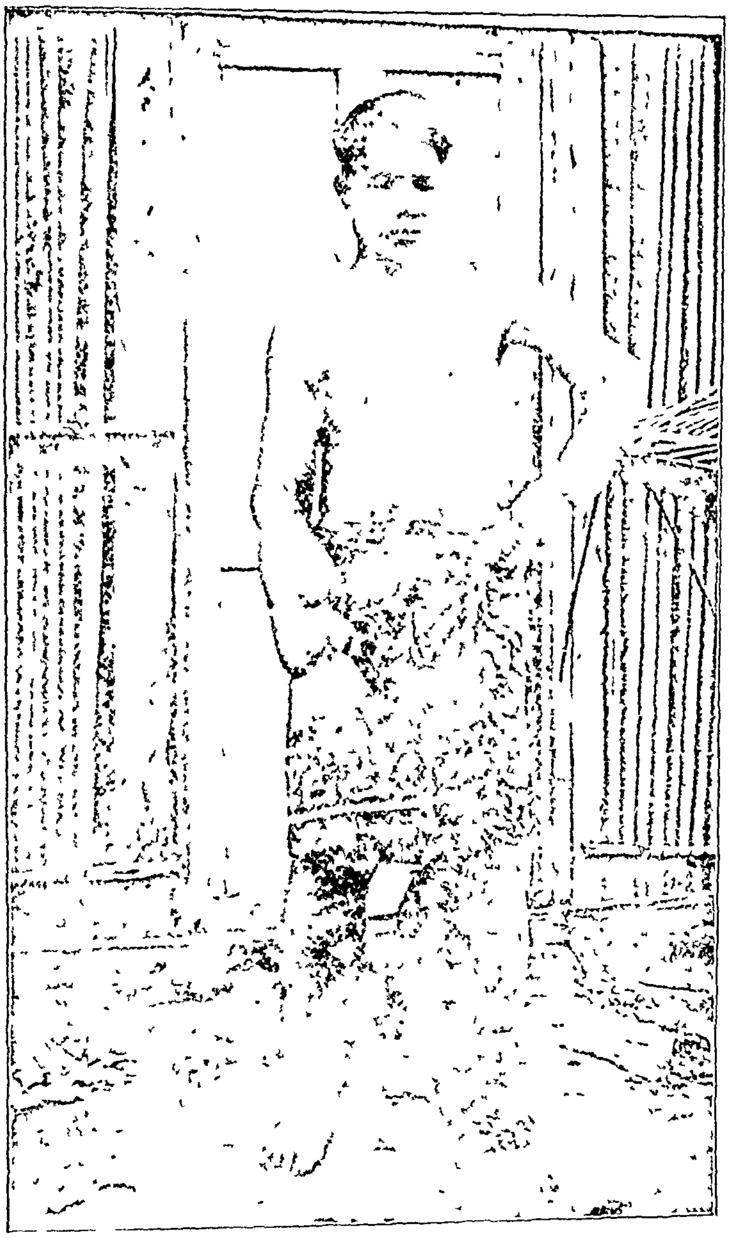

Fig. 3—Tahitian. Elephantiasis of all extremities

According to Lemoine, who has seen much of this disease in Tahiti and surrounding islands, it may affect most regions of the body, and not infrequently makes its appearance as an acute affection with all the symptoms characteristic of lymphangitis, including quite a violent continued or remittent form of fever, which lasts two or three months. The acute form is, almost without exception, complicated by synovitis of the joints of the affected limb, which he regards as almost pathogenic of the disease, differentiating it from ordinary forms of lymphangitis. After the subsidence of the acute symptoms and in the chronic form the disease is essentially a chronic lymphangitis, accompanied by marked enlargement of the veins. According to his observations the regions most frequently involved are the lower extremities, external genitals, and lastly, the hands and forearms. Last winter I was given an opportunity to see, at the hospital and poorhouse at Antigua, West Indies, 90 cases of elephantiasis, and not in a single one of them did the disease involve the upper extremity, while in the French colony of the South Seas this is not infrequently the case. I do not know that a satisfactory explanation has ever been given why the disease should behave so differently in the two groups of islands. Lemoine, as well as other writers on elephantiasis, has seen the disease become stationary by the removal of the patients to a colder climate. Europeans become susceptible to elephantiatic infection after a prolonged residence in tropical countries Lemoine does not agree with Manson, who believes that elephantiasis is caused by the filaria sanguin and suspicions that the essential etiologic factor is a yet undiscovered microbe. He made blood examinations night and day of patients under his care, and was unable to constantly detect the filariæ in their embryonic state in the peripheral blood, and consequently claims that the presence of filaria in the organism is not an infallible diagnostic indication, and that their abundance is not proportionate to the intensity of the disease.

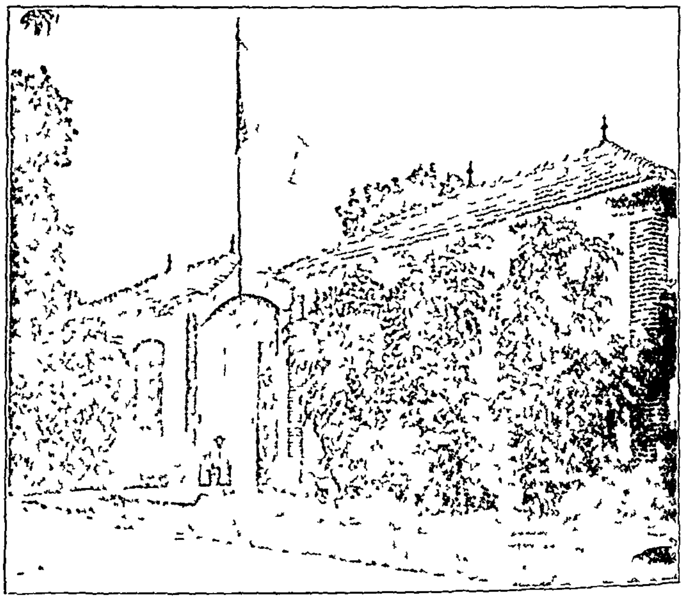

Fig 4—Military hospital at Papeete

The fact that the elephantiatics improve in colder climates he regards as another proof that filariasis is not the essential cause of the disease. In a number of cases extirpation of the infiltrated enlarged lymphatic glands was followed by decided improvement, and in the case of a Tahitian the improvement remained at the end of two years. He has also operated on a number of cases by partial excision of the mass, first on one side of the limb, then the other, with decided benefit to the patient in most of them. In some cases deep incisions through the entire thickness of the indurated mass afforded relief and resulted in diminution of the size of the swelling. He relates the details of the case of a native, 50 years old, the subject of elephantiasis of the lower limbs, that he operated on in two stages several weeks apart, removing first a large section from the anterior and later from the posterior part of the swelling, and as shown by the accompanying illustrations in the report depicting the condition of the limbs before and after operation. with an excellent result. However, in some of the cases the results could not be maintained for any considerable length of time. In making the excision, the superfluous skin is excised with the underlying indurated tissues, and the skin margins reflected for some distance in order to afford sufficient room for a more liberal excision of the deep tissues.

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[1] Quelque's opérations palliatives applicables à l'éléphantiasis des arabes pratiquées a'Tahite, par M le Dr Lemoine, Médecin Major 1pr Classe Troops Coloniales

In one case, that of a woman 38 years of age, the patient died two weeks after the second operation. Death was attributed to loss of blood and the debilitated condition of the patient when she entered the hospital.

In another case, a Tahitian, 35 years old, affected with elephantiasis of all limbs and the external genitals, he operated successfully on one of the upper limbs, the seat of an enormous swelling below the elbow. The excised mass weighed 15 kilograms. Owing to the large size of the swelling, the operation proved one of great difficulty, and owing to the tension incident to the approximation of the margins of the flaps the sutures cut through and the wound healed by granulation. At the second operation nearly the entire mass was removed, with the result that the wound healed after a prolonged suppuration and the patient was relieved of the incumbrance caused by the great weight of the swelling. The relief afforded induced the patient to request additional operations for the removal of the swellings involving other regions of the body, but as the surgeon soon after left the island his desire could not be gratified.

The paper of Lemoine is summarized by him in the following conclusions:

1. Operate before extensive muscular degeneration has taken place and prepare the limb with the utmost care to insure asepsis.

2. Study carefully the anatomic relations of the swelling and operate where the swelling is narrowest.

3. Select the skin best adapted for flap formation with which to cover the wound. Transverse flaps are more likely to survive than lateral flaps. The best plan to make the flaps is to shape them so that the wound can be sutured in the form of a Maltese cross.

4. The median flaps should be cut first obliquely from without inward, taking care to make them sufficiently thick for the excision of the mass and the cutting of the lateral flaps; make a longitudinal incision through the middle of the mass and calculate carefully the extent of the diseased tissue to be excised. The lateral flaps should be thickest at the base and well supplied with blood vessels.

5. To be absolutely sure of asepsis, avoid unnecessary manipulation and clamp rapidly all the bleeding vessels as they present themselves; tie all the veins with catgut and drain at the most dependent points.

6. Suture carefully with catgut for the deep and horsehair for the superficial sutures so as to secure the most accurate coaptation of the flap margins. as the sclerosed skin does not apply itself readily to the wound surface.

7. Avoid irritating antiseptic dressings, as they are productive of dermatitis in tropical countries, and especially if applied on skin diseased and badly cared for.

8. The first dressing should be aseptic, light and made to exercise gentle, uniform pressure by bandaging.

HÔPITAL MILITAIRE.

The Military Hospital at Papeete is the only one in the French colonial possession of the Society Islands, numbering 168 islands and containing a population of 30,000, of whom 11,000 live in Tahiti. As some of these islands are more than 100 miles apart it is somewhat strange that the French government has not taken earlier action in establishing small cottage hospitals in a number of the larger islands, as in the case of severe injuries or sudden illness the natives of the distant islands are not within reach of medical aid and the transportation by small schooner or canoes of a sick or injured person to Tahiti from the far-off islands is necessarily slow and in many instances dangerous. The sanitary commission now stationed in the islands will, it is to be hoped, act promptly in remedying this defect in the care of the sick natives.

On the voyage from San Francisco to Tahiti I met Mr. George R. Richardson, a native of Springfield, Mass., who had lived with his native wife on the little atoll island Kaukuaia of the Tuamotu group, 168 miles from Tahiti, for the last thirty years. He was suffering from carcinoma of the esophagus, and was returning from San Francisco, whither he had gone for medical advice. His little island had a population of 150, and during his residence there he had never seen a physician, although the inhabitants were frequently in need of medical services, owing to frequent visitations of epidemic diseases and the prevalence of pulmonary tuberculosis. His native wife gave birth to sixteen children, all of whom he delivered himself, and strangely without any mishap either to mother or child. What happened on that island must have happened on the many other distant islands under similar circumstances.

The Military Hospital at Papeete is an old structure of brick and cement, situated near the western limits of the city in a large square yard inclosed by a high stone wall, surmounted by a crest of fragments of glass, which imparts to the inclosure a prison-like appearance, the severity of which, however, is much relieved by beautiful tropical trees, shrubbery and flowers in front of the entrance and in the court yard. The hospital proper comprises seven buildings, only one of which is two stories high. The hospital has accommodations for 40 patients. The officer's rooms contain two beds each; the remaining space is divided into small wards for privates and civilians. In one ward, the windows of which are strongly barred, are kept the prisoners, and another small ward is devoted to obstetrical cases. The rooms and wards are well ventilated and clean, the beds comfortable; the hospital furniture otherwise is scanty and antique.

The drug room is large, richly supplied with large jars, mortars of all sizes, herbs, roots and a complete and complicated outfit for making infusions, decoctions and tinctures, which reminds one very vividly of an apothecary shop of half a century ago. This department is in charge of a pharmacist who, besides mixing drugs, does some chemical and bacteriologic work in a small and imperfectly equipped laboratory. The operating room is an open passage way between two adjoining wards. and all it contained suggestive of its use were an operating table of immense size and decidedly primitive construction, and a tin irrigator suspended from the wall, to which was a long piece of rubber tubing of doubtful age. The hospital is well supplied with water, and contains a bathroom, a shower bath and modern closets.

The hospital is in charge of the government physician, who is always a medical officer of the colonial troops detailed for this special service, usually for a period of three years. The present incumbent is Dr. Brunati, a naval surgeon, who is about to be relieved by his successor.

From some reports I gleaned that on an average this institution takes care of about 350 patients a year. At the time of my visit the number of patients did not exceed 15, among them one in the prison ward. All of the patients were the subjects of trifling affections. The patients are being cared for by three Catholic sisters and orderlies as they are needed. Charity cases are admitted gratuitously; private patients pay from 6 to 15 francs a day.

PHYSICIANS OF TAHITI.

There are only two educated physicians in Tahiti, Dr. Brunati, the government physician, and Dr. Chassauiol, a retired naval surgeon, the latter the only private practitioner in the whole group of islands. The government physician is privileged to practice outside of the hospital, and from this source he receives the bulk of his income. These government physicians are by no means low-priced practitioners, as is shown by one instance that came to my knowledge, when a native of limited means was charged $100 for a circumcision for phimosis. As these two physicians are the only ones in the whole archipelago constituting the Society Islands, the French colony of the Pacific, it requires no stretch of the imagination to realize that until the present time the French government has not made adequate provisions for their subjects requiring the services of a physician.

The Tahitian has not lost his faith in the native doctors, who, without any medical knowledge, practice their art. These men, with a local reputation as healers of disease, are to be found in nearly every village; they are well thought of and are influential members of society in their respective communities. Like the medicine men of our Indians, they make use of roots, bark and herbs as remedial agents, and the natives, like many of our own people, have more faith in this mysterious kind of medication than modern, concentrated, palatable drugs prescribed by the most eminent physician. To the credit of these native medicine men it must be said that they give to all afflicted who apply for treatment not only their services, but also the medicines without any expectation of reward or even the gratitude of their clients.

LARYNGECTOMY FOR CANCER.

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Previous to 1888 the death rate for laryngectomy was very high. According to Sendziak,[1] who has collected the largest number of cases, the mortality is 35 per cent. for all cases up to 1897. If we now look at the cases operated on from 1888 to 1898, we find that the death rate has fallen to 14.5 per cent., with a corresponding fall in the number of recurrences—11.2 per cent. as compared with 30.3 per cent. This marked improvement has been due to the new methods which aim to avoid sepsis and to do away with aspiration pneumonia. These two conditions have been responsible for the majority of the fatal cases, while reflex inhibition of the heart through the superior laryngeal nerve and death from vagus degeneration deserves mention. Recurrence is less frequent because of early and more radical operating with regard for the lymphatics.

The first step in advance in operative technic was made by Bardenhauer.[2] He sutured the pharynx wall after removing the larynx, to avoid contamination of the wound by saliva, decomposing food, etc. Poppert[3] copied Bardenhauer's procedure and added a second layer of stay sutures, while Rotter[4] strengthened the pharyngeal sutures by sewing the divided muscles over in the median line. To prevent the entrance of wound secretion into the trachea, Gluck[5] separated the latter from the larynx, and turning the tracheal stump forward, sewed it into the lower angle of the wound. Foederle,[6] after total larynx extirpation, fastened the stump of the trachea to the hyoid bone, thus preserving the continuity of the trachea with the upper air passages. His patient made an uneventful recovery, and was able to leave the hospital in two weeks. Von Hippel's experience with this operation was unfortunate. In his case the upper end of the trachea became gangrenous from tension and infection, though the patient recovered after two months' illness. In view of this circumstance, few surgeons will care to operate in this way, and as far as I have been able to discover, there are only the two cases in the literature of this subject.

Opinions differ concerning the feasibility of preliminary tracheotomy. Delavan speaks in favor of it. Kocher[7] advocates tracheotomy at the time of the major operation, while Keen[8] omits it altogether. Davis[9] speaks strongly in favor of this procedure, and says that by it the trachea is fixed to the surrounding tissues, and this prevents the riding up and down of the stump in the wound that occurs when the larynx and trachea are separated. His patient died from infection, primary about the sutures uniting the stump to the skin. No preliminary tracheotomy had been done, and the constant motions of the tracheal stump prevented union and predisposed the tissues to infection. A similar case occurred in the experience of Delavan. The only objection to preliminary tracheotomy is that the patient is subjected to two operations, with several days intervening and the resulting anxiety.

Local anesthesia finds more favor abroad than in the United States. Kocher advocates cocain for all laryngeal operations. Davis used eucain in his case. Most American surgeons prefer chloroform, and there can be no doubt that conditions are more comfortable for all concerned with a general anesthetic. Whatever anesthetic is used, the superior laryngeal nerve should be cocainized to avoid reflex inhibition of the heart.

The epiglottis may be removed with the larynx or left *in situ*. Some operators remove it as a routine measure, on the ground that it may be the site of recurrence. Its removal certainly offers no difficulty.

Whether the coracoid is excised or left in place must be decided at the time of operation. Where the coracoid is removed, patients are said to swallow better. This has not been borne out in my case, where I left the cartilage in place and the patient has no dysphagia. Formerly the tampon canula was regarded as a necessity in performing laryngectomy, but it is now gradually falling into disuse in favor of the simpler and equally efficient Trendelenburg-Rose position, which is the Trendelenburg position with the head thrown sharply back. This exposes the trachea in the best possible manner, and prevents the inflow of blood more certainly than does the tampon canula.

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[1] Sendziak: Monatschr. für Ohrenheilk., Berlin, 1899.

[2] Bardenhauer: Deutsche med. Woch., No. 21.

[3] Poppert: Deutsche med. Woch., No. 35.

[4] Rotter: Berlin. klin. Wochenschrift, No. 6

[5] Gluck: Deutsche Zeit. f. Chirurgie, 1900.

[6] Foederle: Langenbeck's Archiv, lxiii.

[7] Kocher: Operative Surgery, 1903.

[8] Keen: Annals of Surgery, 1899.

[9] Davis: Annals of Surgery, vol. xxxiii.

Briefly stated, the present operation seems to be divided into two steps, 1, preliminary tracheotomy; 2, after a few days or weeks laryngectomy in the Trendelenburg-Rose position. Cocainization of the superior laryngeal nerve is to be remembered. Primary suture of the pharyngeal and esophageal wounds saves the patient weeks in convalescence, while turning the tracheal stump forward and sewing it in the lower wound angle obviates the necessity of a permanent canula, and in a great measure prevents aspiration pneumonia. That these are improvements over the old methods there can be no doubt, and a glance at the more recent statistics seems to convince one in that opinion.

Gluck[5] reported 34 cases with 31 recoveries, a mortality of only 8.5 per cent., while Graf,[10] of Von Bergmann's clinic, reported 9 cases with one death. Lincoln[11] reported seven cases with one death; the death resulted from vagus degeneration after two weeks.

Concerning the after-care of these cases there is little to be said. Rectal feeding is usually necessary for a few days, followed by cautious esophageal feeding, then liquid and solid food in the order given. In view of the cases of Goldstein,[12] Solis-Cohen[13] and Schmid,[14] the artificial larynx would seem to be unnecessary. In these patients a distinct pseudo-voice was developed, and Goldstein's patient could sing a simple song of more than two tones. In all of these cases there was no connection between the trachea and the pharynx, and it was thought that the air necessary for the production of sound was collected in a dilatation of the pharynx and probably the upper fourth of the esophagus. The slit representing the new larynx was formed between the tongue and the posterior pharyngeal wall. That partial laryngectomy is the operation of election there can be no doubt, but certainly the last decade has served to rob total laryngectomy of many of its terrors.

Mrs. —, aged 33 years, was seen in consultation with Dr. Plummer, Oct. 31, 1902. Her family and past history were negative. Present illness dates back about five years. During this time she has been hoarse and sometimes dyspneic. These symptoms have been worse in the past month, with marked increase in dyspnea during the last two weeks. At times she is very cyanotic, but has no dysphagia, no loss in weight, no history to indicate tuberculosis or syphilis. She has been treated by several laryngologists for "papilloma of the larynx" without relief.

Physical Examination.—She is well developed, well nourished and obese, with a short fat neck. Examination, except as to larynx, is negative. Urine and sputum are negative. With the laryngoscope Dr. Plummer was able to see a tumor which apparently had its base near the lower part of the epiglottis and extended backward between the false cords, covering the true cords. The tumor showed several ulcerations on its surface, and there were also ulcers on the aryepiglottic folds and on the base of the epiglottis. The vocal bands showed good motion with a fair amount of breathing space between them.

In the differential diagnosis tuberculosis, syphilis and malignant disease were considered. The first mentioned could almost be certainly excluded by the negative sputum examination, so that syphilis and malignant disease were most prominent in our minds. Since there was fair breathing space between the cords we decided to try the effect of antispecific treatment, so mercury biniodid, gr. 1/16 t. i. d., and potassium iodid, gr. 10, to be increased to gr. 30 t. i. d., were ordered.

On the following day the patient's condition was worse. She had had several bad attacks of dyspnea, was very apprehensive and slightly cyanotic. Therefore, tracheotomy seemed advisable while her condition was good, as the short fat neck promised a difficult operation under the most favorable conditions.

Tracheotomy.—Cocain ¼ per cent. Median incision one and a half inches long. The coracoid could not be palpated on account of the thick layer of fat. Dissection carried down to trachea, which was opened below the second ring. Tracheotomy tube inserted. Operation was rather long—20 minutes.

For several days there was considerable trouble with the tube, which was too short and kept jumping out of the trachea. When this occurred air was pumped into the tissues of the neck and the resulting emphysema and dyspnea were very alarming. The problem was finally solved by substituting a piece of a No. 28 F. rubber catheter for the canula until the longer silver canula was made. Some bronchitis followed the operation, lasting for about eight days. The antisyphilitic treatment, above mentioned, was carried out for eighteen days. At the end of this time, there was considerable increase in the size of the tumor, with some sloughing. Repeated attempts to obtain a microscopic specimen with laryngeal punch forceps failed to yield anything but sloughing tissue. The larynx was now closed by the tumor and by edema. There was no voice, and apparently no air came through the larynx. The conditions being in every way worse, exploration was decided on.

Laryngectomy.—Nov. 19, 1902, chloroform was administered in the Trendelenburg-Rose position. The tracheotomy wound was extended up to the hyoid bone and joined at the upper end by a transverse incision which reached to the anterior border of the sternomastoid muscles on either side. The sternohyoid muscles were retracted and the thyroid cartilage was cocainized and divided in the median line with scissors. The larynx was found filled with friable growth. As the cartilage was involved, it seemed best to remove it. The sternohyoid muscles were then severed just below the hyoid bone, while the thyrohyoid and sternothyroid muscles were separated from the cartilage at their insertions. The thyrohyoid membrane was now divided on the left and the left half of the thyroid cartilage with corresponding vocal band and arytenoid were removed *en masse*. Beginning above, the thyrohyoid ligament, stylopharyngeus, inferior constrictor and cricothyroid muscles were divided in turn. In a similar manner, the right half was removed with the epiglottis. This was readily accomplished by turning the cartilage downward and outward as the structures were severed. I then tried to bring the trachea with the coracoid forward in order to sew the stump to the skin in the lower wound angle, but found the trachea too short. This procedure was abandoned and the traction left *in situ*. The pharyngeal opening was closed with catgut sutures, and the rest of the wound packed with gauze.

Unfortunately the pharyngeal opening was not properly closed, the sutures cutting out almost immediately after recovery from the anesthetic. There was no shock to the operation, and the patient sat up in bed next day. The convalescence was uneventful, save for discomfort caused by saliva constantly exuding from the pharyngeal opening. On this account it was necessary to give esophageal feeding for two weeks. At the end of this time, the patient could eat soft solids comfortably. No dysphagia and no dyspnea. The wound was healed in three weeks, except for a small sinus. At the time of the operation, the patient was three months pregnant, and on May 7, 1903, gave birth to a baby girl weighing 7½ pounds. Delivery and convalescence were normal.

She has been well since the operation, has no dysphagia and speaks distinctly with a whispered voice. The silver canula requires occasional changing. It is now fourteen months since the operation, and there is no sign of recurrence.

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[10] Graf: Archiv für klinische Chirurgie, lv.
[11] Lincoln: Transactions Amer. Laryng. Assn., 1903.
[12] Goldstein: Verhandlungen der Deut. Gesellschaft f. Chirurgie, 1900.
[13] Solis-Cohen: Archiv für Laryngolpgie, vol. i.
[14] Schmid: Archiv für klin. Chirurgie, No. 38.

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COLLEGE CREDIT FOR MEDICAL STUDY.

The method of combining a course for the bachelor's degree in a literary and scientific college with part of the course in a professional school, which plan was described by Dr. George W. Hall in a communication in THE JOURNAL, March 5, is of especial interest and significance at the present time. This plan, proposed by President Kane of Wabash College and recently put into operation at that institution, is briefly described in the announcement for that school as follows: "A four years' course of study in which three years shall be prescribed work, all electives being reserved for the fourth year. Students taking this option will be permitted, if they so desire, to pursue their fourth year in attendance at a professional or technical school approved by the trustees of the college; retaining in the meantime their college standing and responsibility and being eligible for graduation with their class on the presentation of proper credits earned in this way. This option, it will be noted, affords the student an opportunity to secure during his fourth year such credits as will be recognized in full in both college and professional school, thus shortening by one year the aggregate time for academic and professional study."

It will be observed that the professional school selected must be approved by the trustees of the college. It is further intended that each student taking such a course shall be under the direct supervision of a member of the faculty of Wabash College, who will keep in constant touch with him and make sure that his year of work in the professional school is of such quality as to be the entire equivalent in culture value of the regular work of the senior year. It will doubtless be insisted on that the medical school chosen shall provide instruction in the fundamental medical branches of a comprehensive, thorough and scientific character.

There is a widespread and growing feeling in the medical profession, and especially among those engaged in medical education, that under the conditions now obtaining the best four years' high-school education affords an inadequate preparation for the study of medicine. On the other hand, it is clearly impracticable to require of all students the completion of the next stage in our educational scheme, namely, the possession of a bachelor's degree; indeed, it is believed by many that it would be a disadvantage to some students to spend so much time in preparatory work. In the effort to devise a satisfactory compromise between these extremes, several of the larger institutions have arranged a combined course, which has been described as the telescoping of the professional course into that of the collegiate course proper. It is possible at the present time for a student to procure the bachelor's degree, together with the degree in medicine, in six years in several institutions, among them the University of Chicago, the University of Michigan, the University of California, and Cornell University. As the course of collegiate study at these institutions was already elective, this combination has been effected without doing any serious violence to their existing regulations in reference to the bachelor's degree, it being understood, of course, that the branches which constitute the first two years of the medical curriculum are to be taught on strictly university lines by persons who are giving their whole time to teaching and research. The existence of such a plan in these larger institutions, however, places the smaller colleges at a distinct disadvantage. The temptation to students to leave them at the end of the sophomore year to enter an institution where they can complete the combined course in four remaining years, while if they were to complete the course in a smaller college it would require at least five, and in many cases six years, presents a real difficulty which the smaller college must meet in some way. It is no wonder, therefore, that some of these institutions have determined to meet this competition by providing instruction in the first two years of the medical curriculum. This fact that the example of the larger and well-equipped universities is being followed by the smaller colleges, for whom it can hardly be possible to give adequate instruction along medical lines, constitutes one of the chief objections which have been urged against the combined plan. The question for the small college is practically an economic one: To offer adequate instruction in human anatomy, physiology with laboratory work, pathology, and the various other branches usually taught in the first two years of the medical college, would be enormously expensive, when these departments must be maintained for from one or two to ten students each year. Even if an institution had abundant funds, it would be a questionable extravagance to provide instruction in these branches for so few students when the provision already made for such instruction in larger institutions is more than adequate to meet all demands. There can be little doubt that in many cases the instruction in human anatomy would be provided for by engaging the services of a local physician to give a perfunctory course in dissection in his leisure moments, and that the course in physiology and the other branches would be given, not by a physiologist, but by the professor of chemistry, physics, biology or some other branches who would have the classes in physiology added to his already abundant assignment of students.

To the smaller colleges seeking a plan to meet the demands of its students intending to study medicine and to meet the competition of the larger universities, the scheme proposed by President Kane offers an especially satisfactory and adequate solution. In one sense it may be spoken of as a compromise, for, while the student by leaving the college at the end of his sophomore year might in some cases complete the combined course in six years, he will be able, under the plan of President Kane, to complete it in seven years, and with a larger and more thorough preparation for his professional career. The plan will bring together the colleges and professional schools in a kind of pedagogic co-operation that will be of advantage to both. Of the numerous schemes which have been proposed to meet the demands of the time for a thorough preparation for medicine, this plan of Wabash College seems to us the most sane, reasonable and satisfactory which has yet been offered for those students who begin this work in the small college.

MOTOR PHENOMENA OF MANIA AND MELANCHOLIA.

Of the nature of the processes that underlie mental activity definite knowledge is wanting, but analogy would seem to permit the conclusion that they are comparable to the physiologic processes that take place in other organs than the brain. Like the activities peculiar to other organs, also those peculiar to the brain may be variously modified, and the resulting aberrations of function constitute the morbid processes grouped together under the general term insanity. Accordingly, in the one instance, as in the other, it is sometimes difficult to note exactly where the normal passes into the abnormal. Dr. W. H. B. Stoddart[1] records some interesting observations on the symptomatology of two forms of mental disease, namely, mania and melancholia, and he advances some ingenious speculations as to their cytology. He has called attention to the fact that melancholiacs suffer from rigidity of the muscles of the spinal column and of the large proximal joints, the movements of the wrists, fingers, ankles and toes being comparatively unimpaired. These phenomena are well defined only in severe cases, and but slight in mild cases. The rigidity is most marked in the muscles of the trunk and neck, and less marked successively at the shoulders and the hips, the elbows and the wrists; it is less marked also at the knees than at the hips, is slight at the ankles and is usually absent at the toes. The flexors are affected in more marked degree than the extensors, and the adductors in greater degree than the abductors. The attitude of the melancholiac is, therefore, one of general flexion and adduction, the shoulders being raised, owing to rigid contraction of the upper part of the trapezius. If with the melancholia there be associated some degree of restlessness or agitation, this shows itself most in the movements that are least interfered with, namely, those of the wrists and fingers, the ankles and toes.

In cases of mania, on the other hand, the movements during a state of motor excitement take place for the most part at the large proximal joints, according to his observation. In running, there is exaggerated movement at the hips; in waving the arms, the greatest movement takes place at the shoulders. The maniac shakes hands from the shoulder; the melancholiac from the wrist. The attitude of prayer is in the maniac with the hands upraised to heaven; in the melancholic with the hands clasped in front of the sternum. The typical attitude of the melancholiac is with the elbows close to the sides; that of the maniac with the elbows away from the sides. In some rare and severe cases of acute mania, however, the movements are peripheral as well as proximal, although those of the latter variety predominate.

Hughlings Jackson has put forward the hypothesis that the slow, proximal movements of the large joints are represented in the cortical motor areas in large cells, and the rapid, peripheral movements of the small joints in small nerve-cells. It is reasoned that if an irritating, stimulating product were formed within the cortical nerve-cells, there would be increased activity of the proximal movements because the large cells, having a smaller relative surface, are less well able to get rid of the deleterious substance. This condition, it is believed, occurs in mania. If, on the other hand, a depressing, paralyzing product were produced within the cortical nerve-cells, there would be weakness or paralysis of the proximal movements for a similar reason. Such a state of affairs is supposed to exist in melancholia, especially in the more stuporous forms. The same argument is applicable if the depressing influence within the nerve-cell be deficiency of nutrient matter (trophoplasm). The large cells suffer most because, having a smaller relative surface, they are less well able to absorb nutrient matter from the surrounding plasma. If the plasma contained an irritating, stimulating body, there would be greater activity of peripheral movements, because the small cortical nerve-cells have a larger relative surface exposed to the deleterious influence. These relations are encountered in cases of agitated melancholia, and occasionally also in cases of mania. Finally, if the plasma contained a paralyzing body or its equivalent—deficiency of normal nutritive and stimulating bodies—the paralysis would be more marked in the peripheral movements. These conditions are rarely present in cases of insanity, except as a result of coarse disease of the brain.

Dr. Stoddart also enters on some interesting reflections on the delusions of the two diseases under consideration. Not realizing that he is paralyzed, and finding himself unable to do the things that formerly he was able to do with ease, the patient may conclude that he is merely ill, or that his soul is lost, or that he is deserted by God, is eternally damned. or that he has committed the unpardonable sin. In this frame of mind he may fix on some trivial act as the cause of all of his trouble, or by a process of simple paramnesia he may even falsely accuse himself. Some patients thus come to think themselves dead, while others believe themselves altered in some way. In hypochondriacal melancholiacs the weakness, although general, appears to attract the patient's notice locally. Thus he may develop the delusion that he can not walk or stand up, or that his legs are brittle and hence made of glass. As a result of various sensations, the patient may gain the idea that his breath is gone or that his throat or bowels are permanently locked up. If the patient normally be suspicious, or if he suffer from hallucinations or illusions, delusions of persecution may develop.

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[1] Lancet, March 5, 1904, p. 639.

In the maniac the delusions of exaltation arise in a corresponding manner from the feeling of activity that results from the stimulation of the cortical nerve-cells. The patient feels strong and capable of the most wonderful athletic feats. Hence arises the general idea of power and the development of delusions of being a duke, a lord, a king, God, or of the possession of untold wealth. The development of these delusions is, however, often modified by the occurrence of hallucinations, and then the feeling of activity is thrown into the background by perversions of the senses.

The foregoing views are interesting and ingenious, and they possess certain hypothetical value. While not susceptible of proof, they can not in the nature of things be successfully contradicted, so that, for the present at least, they may receive tentative acceptance. Function is, no doubt, merely an expression of cell-activity, and disease-symptoms are to be explained by abnormal cell action. The means of demonstration are, however. not yet available.

WHY IS THE ABILITY OF MOTHERS TO NURSE THEIR CHILDREN DISAPPEARING?

That the ability of women to nurse their children is diminishing with great rapidity is a fact noted by all physicians, although it may be attributed to various causes. Professor Bunge of Basel has recently published[1] the results of his study into the causes underlying the loss of this important function, a loss which, he states, affects more than half of the women living in the cities of central Europe. He has collected statistics from physicians, chiefly in Germany, concerning the following points: Number of children borne by the woman; number of children she was able to nurse for nine months each—if unable to nurse, why; number of children borne by her mother; how many her mother could nurse; alcoholism in father and mother. Answers were received covering 1,629 cases, sufficient to enable Bunge to draw conclusions with safety. The women who could nurse their children without having to supplement the breast milk with other alimentation, for a period of nine months—this being the customary period in Germany—he denominates for brevity's sake "capables." The "incapables" are those who were unable to nurse any or some of their children, or who could nurse them for an insufficient length of time, or whose milk was of insufficient nutritional value. When the nursing was interrupted by a passing illness—by mastitis or a subsequent pregnancy—the case was still counted as a "capable." He did not include in the study those cases which were prevented from nursing by malformation of the nipple.

The "capables" were found to number 519, the "incapables" 1,110. Among these 519 there were 423 who could give information as to their own mothers in this respect, and with one single exception the mothers of these had also been able to nurse all their children for the normal length of time. But when inquiry was made as to the history of the mothers of the "incapables," it was found that 39.2 per cent. had been able to perform this function normally. Thus it is clearly shown that *almost without exception* the daughter of a mother who can not nurse her children is likewise unable to do so; and not only this, but there is an increase in the number of women unable to nurse which can not be explained by hereditary influences on the mother's side. Bunge then studied the paternal history of those "incapables" whose mothers had been "capables," and found that chronic alcoholism was present in 78 per cent. of the fathers of these women. As chronic alcoholics he classes those who drink daily more than two liters of beer or one liter of wine, and those who are notorious drunkards; 42 per cent. belonged to this last class. On the other hand, only 2.6 per cent. of the "capable" daughters of "capable" mothers had had drunkards for fathers. Examination of the histories of families of drunkards who had had several daughters showed that in many cases the younger daughters were incapable of nursing, while the older daughters were wholly or partially capable—the father having gradually undermined his health until he was at last unable to beget an entirely normal child. A further study of the family history of this same class of women revealed a connection between this loss of function and a susceptibility to nervous and psychical disturbances, for while only 1.6 per cent. of the class of "capables" were found to suffer from disorders of the nervous system, the enormous proportion of 25.9 per cent. was reached for the "incapable" daughters of "incapable" mothers.

The nursing function, therefore, seems destined to gradually disappear even without any increase of alcoholism among men. For, if it is true, as Bunge's statistics show, that this function once lost is almost never regained, then the number of these "incapables" must be larger in each generation, for there will always be alcoholic fathers to beget "incapable" daughters from "capable" mothers.

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[1] Virchow's Archiv., 1904, p. 185.

THE ETIOLOGY AND PATHOGENESIS OF TYPHOID FEVER.

There is probably no important disease regarding which our conceptions have had to be changed more frequently than typhoid fever. Originally classed with typhus, it was first satisfactorily separated from that disease by Louis and his pupils, and particularly by Gerhard in this country. No great change in our conception of the disease took place from this time until the discovery of the typhoid bacillus by Eberth in 1880. From that time almost to the present the etiology of the disease has been considered as settled, but postmortem bacteriology has led us considerably to change our views as to the pathologic anatomy of the disease. The old idea of a fixed pathologic picture with intestinal ulcerations as the predominating feature has been revised, and we now know that although this picture is the usual one, the pathologic appearances, like the clinical picture, may be varied. Within the last few years infections with closely allied germs, which have been classed as paratyphoid or paracolon bacilli, have been reported from time to time, and the question of importance at the present is the relation of these closely allied infections to one another.

In a recent paper Juergens,[1] who has had a wide personal experience with typhoid fever and with paratyphoid infection, discusses the relationship between the two at length. He points out that most of the writers who have described paratyphoid infections have endeavored to demonstrate that these cases can be distinguished from true typhoid fever by the clinical course of the infection, the pathologic findings, and the use of the serum reaction. Juergens' paper is an analysis of the reported cases of paratyphoid infection, having in view the proving or disproving of these assertions.

Concerning the clinical picture, Juergens concludes that it is impossible to differentiate typhoid from paratyphoid infections. Both infections may show varied clinical pictures. In some cases of paratyphoid infection every feature of typical typhoid is duplicated, and, on the other hand, cases of paratyphoid infection running a septicemic course can be paralleled by the now well-recognized cases of typhoid septicemia. Not only the disease itself, but also the complications and sequelæ, are the same in the two infections; venous thrombosis, pneumonia, cystitis, hemorrhage from the bowels and even relapses have been seen in paratyphoid cases. The statement that the paratyphoid infections usually run a milder course, which is made by most writers on the subject, Juergens does not consider to be upheld by the available facts. As he points out, only one or two extensive outbreaks of paratyphoid infection have been reported, and outside of these only scattered case reports are to be found. It is true that the paratyphoid outbreaks so far reported have been mild, but some reported epidemics of typhoid are equally mild, and the number of single cases is too small to enable a reliable judgment as to this point to be formed. The postmortems on paratyphoid cases have been very few in number, but none of them shows findings which are incompatible with infection with the typhoid bacillus.

In considering the serum reaction, Juergens claims that a diagnosis based on this alone is entirely unjustifiable in the light of our present knowledge of group reactions. He points out that the serum of many paratyphoid cases gives a well-marked reaction with the typhoid bacillus or the colon bacillus, and while there may be a quantitative difference in the dilutions necessary to produce the reaction with these different organisms, this does not suffice to differentiate the different infections, recent research having shown that specific reactions can not be differentiated from group reactions by quantitative measures alone.

Juergens' conclusions can be readily gathered from the preceding remarks, and it must be added that as a result of these conclusions he discards many of the reported cases of paratyphoid infection as being based on insufficient or unreliable data. He requires for a positive diagnosis of paratyphoid infection the isolation of the paratyphoid bacillus from the blood or excreta if possible, and failing this not only the serum reaction, but also the Pfeiffer test on animals. Juergens deprecates the prevalent grouping of typhoid and paratyphoid infections as separate diseases.

THE INHERITANCE OF THE DISPOSITION TO TUBERCULOSIS.

Since the beginning of the bacteriologic era our views as to the inheritance of tuberculosis have undergone several changes. When the tubercle bacillus was first discovered it looked as though the matter was greatly simplified and would soon be cleared up. At first it was thought that the tubercle bacillus itself was handed down from generation to generation, but pathologic experience soon disproved this, and even at the present day the reported cases of true inheritance of the germ can almost be counted on the fingers. The appreciation that the bacilli themselves were but rarely transmitted led to the formulation of the theory of the transmission of the soil, as the French have called it. It was taken for granted that some structural peculiarity was transmitted which favored the multiplication of the tubercle bacillus in the tissues of the unfortunate individuals who possessed it. This view is, in fact, the prevailing view at the present time, though of late years certain observers have been placing more and more stress on the importance of contact with infected cases, and still others have recently brought out facts pointing to the possibility of latent inherited tuberculosis.

In a recent article, Burckhardt[1] has recorded the results of his comparison of two hundred and fifty tuberculous and two hundred and fifty non-tuberculous individuals, as regards their family history. In a brief review of recent articles bearing on the subject, he points out that the work of Kuthy, who found no difference between the family histories of tuberculous and non-tuberculous subjects, is not reliable on account of the fact that this observer did not compare equal numbers of the two classes of cases. In his study, Burckhardt considered only relatives closely related to his cases. He collected the histories of the grandparents, the parents and their brothers and sisters, the brothers and sisters of the patient, and, if married, the husband or wife and the children. According to Burckhardt, this would mean on the average the consideration of fifteen relatives. His results at first glance seem to be decidedly in favor of inheritance of the disposition, as he found that there was a family history of tuberculosis in 66 per cent. of the tuberculous cases, and in only 42 per cent. of the non-tuberculous.

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[1] Zeitschrift f. klin. Med., vol. xxv, Nos. 1-2.

[1] Zeitschrift für Tuberculose, vol. v, No. 4.

Further analysis shows, however, that the results when closely scrutinized suggest a different interpretation. Burckhardt found, for example, that if we consider the percentage of tuberculosis in the brothers and sisters of patients, or in the mother, there seems to be strong evidence in favor of hereditary transmission. Thus in his two hundred and fifty tuberculous cases, 38 per cent. had one or more brothers or sisters with the disease, while of the two hundred and fifty non-tuberculous, only 18 per cent. had brothers or sisters with the disease. In the tuberculous cases there was a history of tuberculous disease in the mother in 15.2 per cent., while such a history was present in only 6.8 per cent. of the non-tuberculous cases. When the history as regards the father was considered, however, it was found that tuberculous and non-tuberculous individuals showed an almost equal percentage of infection, the tuberculous having 14.4 per cent. of tuberculous fathers, and the non-tuberculous 11.6 per cent. As Burckhardt points out, these facts may be interpreted to mean that transmission takes place by contact with infected cases, this explanation being just as logical as the assumption of heredity of the soil, as the members of a family are much more likely to be brought into contact with their mother or their sisters and brothers than with their father, who is away from home at his work. While Burckhardt seems to favor the importance of direct transmission by contact, he does not believe that it can be stated at present that heredity is of no importance.

The question as to just what its importance is must be solved by further studies, and the line of investigation suggested is that outlined by Schrötter, viz., the investigation of the descendants of tuberculous individuals from the anatomic, physiologic and serologic standpoints. The questions are still far from being satisfactorily solved; in fact, new investigation often seems only to open up new problems and to indicate unsuspected possibilities.

THE PROTOZOA IN DISEASE.

The *Century Magazine* for April contains two articles that are in different ways of medical interest. In the first Prof. Gary N. Calkins of Columbia University furnishes a very readable account of the protozoa in disease and gives in an intelligible manner the general facts in regard to the development of these disease-producers with which we are specially concerned. The article is illustrated by original drawings from the author's own pen and may be considered as authoritative, though appearing in a popular magazine. He assumes perhaps a little too much in admitting—as it appears to us that he does—that the protozoan origin of scarlet and yellow fevers has been discovered, but that does not detract from the general value of his article. Furnishing as it does in a brief but very comprehensible way the main biologic facts in regard to pathologic sporozoa which are probably not known to the great majority of physicians, the article is well worth reading by medical men.

WEIR MITCHELL ON GEORGE WASHINGTON.

The other contribution in the *Century,* referred to above, is by Dr. Weir Mitchell, whose literary achievements have widened his reputation so well earned by his work in medicine. It is in a measure a sort of historical novel, as it is in the form of an assumed autobiography of George Washington. We do not see that Dr. Mitchell has attempted to cultivate or imitate Washington's style as we know it from his state papers and addresses. We doubt whether Washington could have expressed himself anywhere nearly as well as Dr. Mitchell does it for him. Still he might have very naturally thought out the same thoughts and the paper shows a very close study of the early and family history of the father of his country. Medical men will find of interest this latest contribution of a colleague who has reflected honor on the profession in more ways than one.

EXPERT WITNESSES APPOINTED BY THE COURT.

The method of appointing expert witnesses has been so much discussed pro and con in every way that court decisions which throw any light on it are welcome. In a recent case in Kentucky[1] the appellant pleaded as an error that the two medical witnesses who testified in the case regarding the extent of the plaintiff's injuries were appointed by the court, and that the attorney for the other side had been allowed to make this fact known to the jury. The Court of Appeals decided that the physicians had been appointed by the court under the large discretion which it possessed. The question was not a matter as to how they came to know the facts, but as to the truth of their testimony, and the knowledge on the part of the jury that the witnesses came from the impartial appointment of the judge could not prejudice the case against the plaintiff. It would appear from this that a precedent has been fairly set in that state for the appointment of expert witnesses in damage cases by the court, and for the doing away with partisan experts, about which jurists have said so much in discussion and criticism. Medical expert testimony is no worse than any other expert testimony, but it suffers by the fact that the courts usually recognize any *soi-disant* expert as perfectly competent to act in that capacity and the juries are not supposed to be discriminating as to the quality of those who thus represent themselves. If the courts can make an intelligent appointment of medical experts the difficulty will be largely overcome. It remains to be shown that the judges know who are and who are not experts.

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[1] See page 973.

MARKED SOMNOLENCE OF LONG STANDING AS A SYMPTOM OF SYPHILIS.

Sleep is a condition of diminished irritability of the entire nervous system, during which opportunity is afforded for recuperation from antecedent fatigue. The exact factors on which sleep depends are not definitely known, although it may be surmised that they are in part chemical or metabolic and in part circulatory or vascular. The amount of sleep required varies in different individuals, and in the same individual at different times. Deficient sleep or insomnia is observed in association with a number of disorders of the nervous system, directly or indirectly; abnormal somnolence more rarely under analogous conditions. A most extraordinary instance of prolonged somnolence, probably of hysterical origin, has recently been placed on record,[1] the patient, a woman, having slept, as recorded, for seventeen years. Somnolence further occurs occasionally as a symptom of syphilitic disease of the cerebral blood vessels, and an unusual case of this character is reported by Mr. William B. Bennett.[2] The patient was a man, thirty-four years old, with a history of the initial lesion of syphilis eight years previously, who presented aphasia, had several convulsions and exhibited marked somnolence, both by day and by night, covering a period of five months. Headache and hemiplegia were conspicuously absent. Complete recovery followed active treatment with mercury and iodin. The lesions are believed to have consisted in extensive syphilitic inflammation of the cerebral arteries, without thrombosis or embolism, but possibly with spasm of the arteries.

THE PROPHYLAXIS OF MALARIA.

Physicians know how difficult it is to persuade the public to adopt preventive measures in preventable diseases. It generally needs an extensive outbreak and considerable loss of life to impress on the mind of the average citizen the necessity for prophylactic measures. If this is true of diseases which have a considerable mortality, it is easy to see why, in a disease like malaria, which seldom results fatally in our climate, so few systematic attempts at stamping out the disease have been made. And yet the comparatively small amount of experience collected in the last few years tends to show that a district can be almost entirely rid of this disease in a relatively short time and at a relatively small expense. Two methods are at our disposal—that suggested by Koch, which consists in combating the disease in the human being, and the method mostly used by the French and English speaking peoples, which consists of destroying the intermediate host—the mosquito—and in protecting human beings against its bites. Two recent papers by French authors[1] give some idea of the relative effectiveness of the two systems. It would seem that the method usually employed in this country is much more effective than Koch's method. The two main reasons why Koch's method is difficult to enforce are the difficulty of getting people to take quinin when they think they are well, and the impossibility of detecting larvate cases of the disease even with the aid of a blood examination. A small amount of work has been done in this country attempting to exterminate malaria, but the main malarious districts as yet remain almost untouched. It is to be hoped that in the near future the work will be taken up in a systematic way.

THE MARAGLIANO LECTURE.

The results of the studies of Professor Maragliano, which have been fully reported from time to time in The Journal,[2] are very fully summarized in the latest Phipps lecture,[3] which was to have been delivered March 28. Its statements in detail will be of interest to American readers, though the facts and views there expressed have been already given in foreign journals. Behring's experiments with vaccination on calves against tuberculosis are well known, but Professor Maragliano has gone further, and he reports the results of attempts to immunize human beings by the use of vaccine material containing no living bacteria. Of course, the test of such immunity against cultures of living bacteria can not be made in our species. Behring's results in calves do not warrant the application of his method to the human subject, and Maragliano is evidently not the man to engage in dangerous experiments. Still further, he finds that the protective elements of the serum are capable of being absorbed through the mucosa of the digestive tract, and that by ingestion a certain degree of immunity can be acquired. This fact seems to be one of practical importance, as he says why "instead of ordinary milk should we not use the milk of immune animals," and thus produce a passive immunity which experimental results have already warranted us to expect. Such experiments can certainly be tried, and it only requires the general practice of immunization of our domestic animals to ensure its practicability, and it is to be hoped also its success. While many of us will accept Professor Maragliano's statements with some reserve, considering him perhaps as showing the enthusiasm of the discoverer and exceeding the assured limit of actual results in his views, nevertheless there is much in his lecture that deserves our careful consideration, and its publication in our language can hardly fail to have a useful influence. His desire that the experiments with feeding with immunized milk and meat should be tested on a broader scale in this country, where, as he believes, the facilities for such are so much greater than abroad, will, we hope, be gratified, at least to a certain extent.

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1. Herbst: Berliner klin. Wochenschrift, Feb. 5, 1904.
2. British Medical Journal, March 12, 1904, p. 594.

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1. Edmond and Etienne Sergent: Annales de l'Institut Pasteur, February, 1904.
2. The Journal, Nov. 21, 1896. See report of one year's work in The Journal, Jan. 2, 1904, pp. 70-71.
3. See Medical News columns in this issue and the *N. Y. Medical News*, April 2.

A SIMPLE BLOOD TEST FOR TYPHOID.

In a recent number of The Journal we noticed editorially Ficker's test for typhoid with a solution of dead bacilli. It was also stated that the preparation and instruments were put up by Merck of Darmstadt for ready use. In the last number of the *Journal of Infectious Diseases*, Ruediger reports the results with typhoid culture bouillon, in which the bacillus had been killed by formalin 1 c.c. to 100 c.c. of bouillon, and the method seems to be fully as simple and practical as that devised by Ficker. It is, therefore, in the power of any one who can make cultures from typhoid bacilli to provide his own solution, and Ruediger's paper shows the peculiar sensitiveness of these dead cultures and mentions in a footnote that a good reaction was obtained with cultures that had been killed just one year before. The process is a very simple one: Add four drops of blood to 2 c.c. of a 1 to 500 solution of formalin in distilled water. When laking is complete, add 4 c.c. of the dead culture to 1 c.c. of the blood solution and set the two aside. If agglutination takes place the dead organisms collect in clumps, and within an hour or two are seen as a flocculent precipitate settling toward the bottom, leaving the bouillon clear at the end of twelve to twenty-four hours. Dried blood can be employed as well as fresh blood, and the only special precaution in the test is to shake the culture before using it to stir up the organisms from the bottom where they are likely to settle. One or two test tubes and a microscope are all that are necessary. The method seems to be even simpler than the Ficker one, which Ruediger does not mention, and is within the reach of every practical clinician.

Medical News.

ALABAMA.

Smallpox.—Huntsville reports 29 cases in its pesthouse, with no recent deaths. The disease is believed to be under control. ——The disease is reported epidemic in Marshall County, north of the Tennessee River.

Commencement.—At the tenth annual commencement exercises of Birmingham Medical College, April 2, Capt. Richmond Pearson Hobson, late U. S. Navy, delivered the address of the evening, and Dr. Benjamin L. Wyman conferred the degrees.

Seeks Mandamus.—The Mobile Medical College has applied for a mandamus to compel the state auditor and state treasurer to pay the first installment of $5,000 on the $20,000 appropriated by a bill passed by the last legislature, but which was not signed by the governor.

Graduating Exercises.—The closing exercises of the thirty-eighth annual session of the Medical College of Alabama, Mobile, were held March 31. Forty-four diplomas were issued. The president of the university conferred the degrees. The attendance during the session was the largest in the history of the college. The recent enlargement of its laboratories and equipment for pathologic and chemical studies are in line with the policy of the institution.

CALIFORNIA.

Inspection of School Children.—On April 1, inspection of the health conditions among San Francisco school children was inaugurated by a corps of volunteer medical inspectors.

February Mortality.—The deaths for February numbered 1496, equivalent to an annual mortality of 17.04 per 1,000. Tuberculosis caused 247 deaths; heart disease, 184; pneumonia, 169; cancer, 72; and bubonic plague, 5.

Society Endorses Medical Efficiency Bill.—The Santa Barbara County Medical Society, on March 15, adopted resolutions favoring the bill to increase the efficiency of the medical department, U. S. Army, and urging that the provisions disqualifying officers of the medical reserve corps from retirement, retirement pay and pensions, be stricken out.

New Cottage at Agnews.—The trustees of Agnews State Asylum have adopted the plans for the proposed new cottage for the treatment of the insane at that place. The cottage is to cost $37,965, and will accommodate 100 patients.

Personal.—Dr. John R. Colburn, Los Angeles, has been made chief surgeon of the San Pedro, Los Angeles and Salt Lake Railroad, vice Dr. Charles F. Taggart, resigned.——Dr. William M. Lawlor has been made receiving clerk at the San Francisco City and County Hospital.——Dr. George F. Reinhardt has succeeded Dr. Frank H. Payne as health officer of Berkeley.

ILLINOIS.

Monmouth Hospital Open.—The new Monmouth Hospital opened for the reception of patients, April 1.

Diseases Close Schools.—Smallpox has caused the closure of the public schools of Marseilles.——Philo, Emden and Divernon schools are closed on account of scarlet fever.

Surgeon Resigns.—Dr. George N. Kreider, Springfield, major and surgeon, assigned to the Fifth Infantry, I. N. G., has resigned.——Dr. Arthur F. Wilhelmy, Decatur, has been designated to fill the vacancy on the examining board of the regiment, caused by Dr. Kreider's resignation.

How the Government Deals with Fraud.—"Dr." J. F. Braun, Mascoutah, who has been conducting a so-called "health home," and who advertised to cure many ills without medicine, and by absent treatment, has been sentenced to six months' imprisonment and to pay a fine of $500 and costs by the United States Court at Cairo for using the mails for fraudulent purposes. The State Board of Health has instituted several suits against Braun during the past year, but was able to obtain a conviction in only one instance. It was found necessary, therefore, to obtain the aid of the federal authorities.

Chicago.

Smallpox.—There are at present 11 cases of smallpox in Chicago, six of which are in one Dowieite family, which refused vaccination.

Off for Europe.—Dr. G. Paull Marquis, lieutenant colonel and assistant surgeon general, sails April 9, with his family, for a stay of seven months in Vienna.——Dr. Ludvig Hektoen sailed for Liverpool on the *Etruria*, April 2.

Antitoxin Stations.—Diphtheria antitoxin stations have been established in 36 localities throughout the city. At these stations physicians may obtain antitoxin free for indigent patients, and at low rates for those able to pay. Culture outfits may also be obtained at these stations.

Decrease in Air-Borne Diseases.—During the first quarter of 1904 30 per cent. fewer children between one and five years of age died than in 1903. The almost continuous snow blanket reduced the prevalence of the air-borne diseases of childhood, so that there were 21 per cent. fewer deaths from diphtheria and 42 per cent. fewer from scarlet fever, while there were but 3 deaths from measles and 4 from whooping cough this year as against 69 and 116 respectively last year.

Deaths of Quarter, Month and Week.—The deaths for the quarter were 7,675, a decrease of 181 from those of 1903, and equivalent to an annual death rate of 15.77 per 1,000. Of these, 1811, or nearly 23.6 per cent., were due to pneumonia, an increase of 170 over the preceding year. Consumption caused 858 deaths; heart disease, 582; Bright's disease, 478, and violence, 441.——During March the deaths numbered 2,609, a decrease of 104, as compared with March, 1903, and equivalent to an annual rate of 15.74 per 1,000. Pneumonia was, as usual, in the lead, causing 621 deaths, or 23.76 per cent. Consumption caused 332 deaths; heart disease, 181; Bright's disease, 157, and violence, 156.——During the week ended April 2, 576 deaths occurred, equivalent to a yearly mortality of 15.40 per 1,000. The percentage of deaths from pneumonia was 21.53 The deaths from pneumonia were 124; from consumption, 80; from heart disease and Bright's disease, each 36, and from violence, 33.

KANSAS.

Personal.—Dr. J. F. McNaughton, assistant physician at the Topeka State Hospital, has resigned and will practice in Gove City.

Asks Exemption from Taxation.—Dr. Henry H. Keith, Topeka, has petitioned the board of commissioners of Shawnee County to exempt his private hospital from taxation, on the ground that he does $100 worth of charity work each month, and that he does not receive state aid.

Commencement.—The tenth annual commencement of the College of Physicians and Surgeons was held in Kansas City, March 31. A class of 11 was graduated; the annual address was delivered by Lowell L. McAfee, LL.D., and the degrees were conferred by Hon. W. H. Brown, assisted by Dr. Ellery M. Hetherington, secretary of the faculty.

Second Munificent Gift.—Dr. Simeon Bell, Rosedale, has given the University of Kansas 440 acres of land in Jackson and Cass counties, Missouri, stipulating that if $25,000 is not realized from the sale of the land the difference will be made up in cash. This is Dr. Bell's second gift to the university, and is for the maintenance of a hospital to be established in Rosedale as a memorial to Dr. Bell's deceased wife.

KENTUCKY.

Smallpox Epidemic.—The secretary of the State Board of Health reports serious outbreaks of smallpox at Earlington, Springfield and Burlington.

Reynolds Wins Suit.—Dr. Dudley S. Reynolds, Louisville, has been given judgment for $7,750 against the Louisville and Nashville Railroad for damage sustained by him which caused pain and loss of practice for a time.

Medical Knowledge for the Masses.—The Lexington Medical Society has appointed a press committee to instruct the public through the medium of the press in the laws of hygiene and sanitation. This committee has instructions to prepare papers along practical lines, to be read before the society, which if approved will be given to the lay press for publication.

Personal.—Dr. James C. Carrick has been elected president of the board of health, and Dr. Nathan R. Simmons, health officer of Lexington.——Dr. Addison S. Robertson has succeeded Dr. Charles R. Garr, as health officer of Flemingsburg.——Dr. Heman Humphrey, Louisville, has been selected as interne in the City Hospital.——Dr. James M. Grant, Petersburg, has been made chairman of the Boone County Board of Health.

Commencements.—Louisville Medical College held its commencement exercises, March 26, graduating a class of 61. Dr. W. F. Sheridan delivered the address of the evening.——Diplomas were awarded to 36 at the annual commencement of the medical department of the University of Louisville, March 31. Dr. James M. Bodine presented the class to Hon. T. L. Burnett, who conferred the degrees. Dr. Henry A. Cottell delivered the faculty address.

MARYLAND.

Baltimore Personal.—Dr. C. Wilbur Larbin of the City Hospital staff has gone to Harrisburg, Pa., to engage in practice.

Half a Million to Hospital.—John D. Rockefeller has given $500,000 to Johns Hopkins Hospital as an addition to the endowment fund to replace the loss suffered in the great fire in Baltimore. The gift has been accepted by the trustees of the institution.

Baltimore Deaths.—There were 202 deaths last week, an annual rate of 18.45 per 1,000. Consumption and pneumonia each caused 31 deaths; grip caused 9 and bronchitis 6. Bright's disease came next to pneumonia and consumption with 16 deaths. The gradual increase in Bright's disease is noticeable.

Mumps Germ Said To Be Found.—It is said that Dr. S. Darling, resident pathologist at the City Hospital, Baltimore, working in Prof. William Royal Stokes' laboratory, has probably discovered the germ of mumps. It is a diplococcus, similar to one described by Laveran and Catrin in 1893, but not connected by them with mumps. The organism was obtained from an autopsy on a child who died from the uncomplicated disease It was obtained in pure culture on blood serum.

The Omnibus Bill Amended.—In the passage of the omnibus appropriation bill (the medical items of which were given in The Journal last week), through the house of delegates, amendments were adopted granting $4,000 annually to each of the following institutions: University of Maryland; College of Physicians and Surgeons; Baltimore Medical College, and Maryland Medical College. It also added to the appropriation of the Baltimore Eye, Ear and Throat Hospital, $10.000 for an additional building: $1,500 a year to the Woman's Medical College, and Good Samaritan Hospital: $1.200 per annum to the Emergency Hospital at Frederick, and gave $15,000 to Hospital for Consumptives.

Ehrlich to Give Herter Lectures.—The authorities of the Johns Hopkins University announce the subjects of the Herter course of lectures to be delivered by Prof. Paul Ehrlich, the director of the Royal Prussian Institute of Experimental Therapeutics at Frankfort-on-the-Main, April 12, 13 and 14. They are: (1) "The Mutual Relations Between Toxin and Antitoxin"; (2) "Physical Chemistry vs. Biology and the Doctrines of Immunity"; (3) "Cytotoxins and Cytotoxic Immunity." The lectures will be in German, but the audience will be furnished with English translations, so that the speaker can be followed more easily. The course of lectures will be open to the general public, as well as to physicians. The Herter course was founded in 1902 by Dr. and Mrs. Christian Herter of New York City, who donated $25,000 for the purpose. They are to be delivered annually by some eminent physiologist or pathologist.

MASSACHUSETTS.

Liberal Village Appropriation.—Brookline has appropriated $34,000 for the public health department and $9,500 to maintain its bath house for the coming year.

Boston's Contributions to Insane Hospitals.—During the past year Boston has sent 260 patients to the Hospital for the Chronic Insane on Long Island; 657 to the state hospitals at Tewksbury, 58 to the Observation Hospital, 134 to insane hospitals, and 31 to the State Hospital for Dipsomaniacs.

Hospital Music Fund.—The Hospital Music Fund will provide music for various hospitals and homes for children, cripples and invalids each Sunday till May 1. Their total contribution to such institutions during this season in Boston, Cambridge, Somerville, Brookline and Chelsea has been 52 concerts. Dr. John Dixwell is in charge.

Personal.—Dr. Ambrose J. Gallison of Franklin has been appointed assistant medical examiner of the sixth Norfolk district.——Dr. George L. Tobey, Clinton, has been elected chairman of the town board of health.——Dr. Charles F. Branch was elected chairman of the Amherst Board of Health.——Dr. Charles S. Holden, Attleboro, has been reappointed medical examiner for the Bristol district.

Disease and Death.—The total number of deaths reported to the Boston Board of Health for the six weeks ended April 2 was 1,420, an increase of 42 over the corresponding period of last year, and an average weekly increase of 20.45. There were 279 cases of diphtheria, with 27 deaths; 161 of scarlet fever, with 6 deaths; 45 of typhoid fever, with 11 deaths; 1,099 of measles, with 33 deaths, and 291 of tuberculosis, with 188 deaths. Pneumonia caused 254 deaths; whooping cough, 5; heart disease, 138; bronchitis, 42; and marasmus, 18. Of those reported 255 were under 1 year old, 381 under 5, and 303 over 60 years of age.

MICHIGAN.

Epidemic Typhoid in Escanaba.—Escanaba is now conservatively estimated to have 200 cases of typhoid fever, and a large number of cases of so-called "winter cholera."

Fire at Escanaba Hospital.—In a fire at the Delta County Hospital, Escanaba, more than sixty patients were driven out of the buildings by the flames into the snow, to neighboring houses, where they were cared for.

Gift for Care of Consumptives.—Miss Helen May Wells, Saginaw, has tendered to the trustees of Saginaw General Hospital, $30,000 to be used in the construction, equipment and maintenance of one or more cottages for the treatment of consumption, as a memorial to her father and mother.

Comparative Morbidity.—For February, 1904, compared with the preceding month, typhoid fever, measles, cancer and whooping cough were more prevalent, and pneumonia and remittent fever were less prevalent. For the same month, compared with the average for February in the last ten years, consumption, typhoid fever, measles, diphtheria and smallpox were more than usually prevalent; and pneumonia, erysipelas, intermittent fever, inflammation of bowels, remittent fever, whooping cough and cholera infantum were less than usually prevalent.

February Mortality of Michigan.—The total number of deaths reported during February was 3,389, an increase of 263 over the preceding month. The death rate rose from 14.7 per 1,000 in January to 17.1 in February. Important causes of death were as follows: Tuberculosis, 189; typhoid fever, 42; diphtheria and croup, 57; scarlet fever, 32; measles, 21; whooping cough, 27; pneumonia, 487; influenza, 195; cancer, 128; accidents and violence, 175. There were 3 deaths from smallpox, and one death from chickenpox was reported from Detroit.

Free Treatment for Deformed Children.—Announcement has been made that any child of Michigan birth born deformed is entitled to free treatment at the hospital in connection with the medical department of the University of Michigan, Ann Arbor, on the following conditions: 1. that the physician present at the child's birth will certify that he was so present, that the child was born deformed, and that in his judgment it can be helped by treatment; and 2, that the mayor of the city, the president of the village, or the supervisor of the township in which the child lives, will order the child cared for at the hospital.

The Most Dangerous Communicable Diseases.—Meningitis was reported present in Michigan during February at 10 places; whooping cough at 20 places; typhoid fever at 87 places; diphtheria at 97 places; pneumonia at 109 places; measles at 129 places; smallpox at 131 places; scarlet fever at 162 places; and consumption at 212 places. Meningitis was reported present at 2 places more; whooping cough at 2 places less; typhoid fever at 6 places less; diphtheria at 4 places less; pneumonia at 11 places more; measles at 27 places more; smallpox at 9 places more; scarlet fever at 33 places less; and consumption at 17 places more, in the month of February, 1904, than in the preceding month.

Warning to Cities and Villages Having a General Water Supply.—The bulletin issued by the State Board of Health for the month ended Feb. 27, 1904, indicates that typhoid fever was much more prevalent than the average for the corresponding month in the ten preceding years. Of the reports received more than twice the average proportion stated the presence of the disease. A contamination of the water supply would account for the unusual prevalence of this disease. In winter that does not usually occur in country districts, the contents of privies being frozen so they can not leach into wells. The unusual reports of typhoid fever came from cities having a general water supply. The inference is that these places are using water from a polluted reservoir, river, or lake, and it is earnestly suggested that the local authorities should promptly notify the citizens to boil the drinking water, so that the recent fatal experience at Butler, Pa., may not be duplicated in Michigan.

MISSOURI.

To Check Urban Tuberculosis.—The committee of 30 appointed at a recent meeting of the St. Louis Society for the Prevention of Tuberculosis met, March 25, and discussed plans for permanent organization. A subcommittee of five, of which Drs. William Porter, George M. Tuttle and Henry J. Scherk are the medical members, was appointed to draft plans for permanent organization.

May Not Prescribe and Also Dispense Whiskey.—In the case of Dr. Thomas S. Manning, Vandalia, who having been fined $100 for violating the drug dramshop law, appealed on the ground that he had the right as a physician to prescribe liquor, and as a druggist to fill his own prescription, the Court of Appeals has decided against the appeal, and sustained the decision of the lower court.

Graduate at St. Joseph.—Ensworth Medical College graduated a class of 19, March 29, Dr. Thomas H. Doyle, president, presenting the diplomas, the faculty address being delivered by Dr. John M. Bell, and the address on behalf of the citizens by W. B. Norris.——A class of 8 received diplomas at the commencement exercises of the Central Medical College, April 1. Dr. Albert L. Gray presided; Dr. O. Beverly Campbell delivered the faculty address, Samuel I. Motter the address on behalf of the citizens, and the president, Dr. Thompson E. Potter, conferred the degrees.

Malpractice Limitation.—At the meeting of the Kansas City Academy of Medicine, February 20, Dr. Lewis B. Sawyer read a paper on "Civil Malpractice Limitations." He commented on the absence of specific legislation on this subject, and explained that it was governed by the statutes controlling torts, which in a general way include damage suits of the character under consideration. This rather loose regulation allows complainants to bring suit any time within five years after the alleged injury or injustice has been inflicted. The essayist, who is also an attorney, believes that the ends of justice would be better served by a specific statutory limitation of one year.

NEW YORK.

Hospital Strife Ended.—Commissioner McAdoo has redistributed the ambulance territory of St. Mary's and Jamaica hospitals. This settles a dispute of long standing.

High Mortality.—The average number of deaths reported by the State Board of Health was about 440 daily during February, an average of 90 more per diem than during 1903.

March Deaths and Diseases.—The State Department of Health reports that there were 12,749 deaths in the state during March, an average of 440 a day. The total exceeds by 2,000 the average for March for five years. Pneumonia caused 1,820 deaths. Smallpox is reported in Cattaraugus, Chautauqua, Erie, and several other counties, but the disease is less active than a month ago.

Tenements and Tuberculosis.—The following committee has been appointed by the Buffalo Charity Organization on Tenements and Tuberculosis: Dr. Peter W. Van Peyma, Frank Carter, George W. Gillette, John D. Larkin, Jr., Dr. Ludwig Schroeter, and Giovanni Banchetti. Dr. John H. Pryor is advisor to the committee. Dr. William C. Callahan has been appointed to procure material on which the committee can act.

New Bills.—Assemblyman McMannis has introduced a bill authorizing the appropriation of $20,000 for the New York Eye and Ear Infirmary.——Assemblyman DeGroot has introduced a bill asking for the appointment of a commission to examine the marshes on Staten Island and their effect on public health, the commission to consist of the state commissioner of health, state engineer and surveyor, the commission of health of New York City, and four men to be appointed by the governor.——The assembly passed the bill providing for the increase of salaries of all state hospital employes who are not affected by the increase made last year. As a result of the increase in wages made last year, an appropriation of about $30,000 has had to be made in the annual supply bill.

Personal.—Dr. Sarah R. Adamson Dolley, Rochester, the second woman in this country to receive a medical diploma, celebrated her diamond birthday a few days ago, when she was presented with a diamond brooch by her professional associates. She followed her profession for 49 years.——Drs. Percy L. Lang, Waverly, Daniel B. Murphy, Rochester, Pearse Bailey, New York City, and George Elmer Gorham, Albany, were appointed managers of the Craig Colony for Epileptics by Governor Odell.——Dr. James Wood, Mount Kisco, and Dr. Charles H. Turner, Albany, were appointed managers of the New York State Reformatory.——The Rt. Rev. Henry C. Potter, bishop of New York, was appointed manager of the New York State Hospital for the Care of Crippled and Deformed Children.——Dr. Edward J. Meyer, Buffalo, will make an extended visit to Europe.——Dr. Henry C. Buswell, Buffalo, leaves soon for a visit to Europe.——Dr. William C. Krauss, Buffalo, has returned from Mount Clemens.

New York City.

Babies' Hospital Needs Funds.—This institution, which treated last year 610 patients of the very poorest classes, received from its patients only $680 toward its support, and now sends out an urgent appeal for financial aid.

Office Building for Physicians.—The first building of this kind, called the Sydenham, will be completed next month. No one except physicians of recognized standing can obtain a lease. The committee in charge is composed of Drs. Robert T. Morris, Freeman F. Ward, Daniel Lewis, George H. Fox, and William B. DeGarno.

Contagious Diseases.—For the week ended March 26, 1,554 cases of measles were reported to the sanitary bureau, with 29 deaths; 494 of scarlet fever, with 25 deaths; 454 of tuberculosis, with 199 deaths; 87 of varicella, with no deaths; 21 of typhoid fever, with 9 deaths; 1 of smallpox, with no deaths, and 359 of diphtheria, with 44 deaths.

Hospital in Good Financial Condition.—A member of the staff of the Manhattan Eye and Ear Hospital notifies us that the institution is not in financial difficulties. He says: "We have not closed any ward for lack of funds to maintain it, or for any other reason. The institution is in a most flourishing condition, which is due to the generosity of its friends."

Dispensary Opened.—The new Mount Sinai Dispensary was opened March 27. There are in all 26 departments equipped with the most modern scientific appliances. This dispensary was the gift from the children of the late Mayor Leaman. The current report shows that during the past year there were treated 32,100 persons, and it is expected that in the new building *at least double that number will* be treated.

Another Abortionist Trapped.—The counsel of the county medical society, by a carefully laid trap, succeeded in securing the arrest of Dr. George H. Dolbeck, in West 28th Street, charged with attempting to perform a criminal operation.——Dr. Edward E. Conrad, whose case has been on trial this week for the same offense, has been found guilty and his sentence will be pronounced soon, which will be imprisonment for not more than two years, nor less than six months.——Dr. Blinn is now a fugitive from justice.

Personal.—Dr. George M. Lefferts, who recently resigned the professorship of laryngology in the College of Physicians and Surgeons, was given a handsome loving-cup, March 28, when he delivered his farewell lecture.——Drs. Linnaeus J. Hunter and James A. Kennedy have been appointed medical officers in the fire department at salaries of $2,000.——Dr. P. Ehrlich of Frankfort-on-the-Main, Germany, participated in the proceedings of the American Association of Pathologists and Bacteriologists.——Dr. Thomas L. Stedman and wife sailed for Europe April 3.

PENNSYLVANIA.

Philadelphia.

Changes in Health Bureau.—Dr. Edward Martin, director of public health and charities, has appointed Dr. John McClintock and Mary Pennington, Ph.D., assistant bacteriologists in the health department, to fill the positions made vacant by the resignations of Drs. John B. Stetson and T. D. Taggert.

College of Physicians to Move.—The College of Physicians, the oldest body of its kind in America, will abandon its time-honored quarters at Thirteenth and Locust streets and will erect a new building at Twenty-second and Ludlow streets. The new site cost $80,000. The society has $106,000 available for the new building, of which $50,000 was given by Andrew Carnegie.

Dr. Maragliano's Paper.—On March 28 Dr. Lawrence F. Flick, director of the Henry Phipps Institute, read Dr. Maragliano's paper before a large assembly of prominent medical men in the College of Physicians. Dr. Maragliano advocates serum therapy and vaccination for the prevention and treatment of the disease. From his researches on the question, both clinical and experimental, he is led to state: 1. That it is possible to produce a specific therapy for tuberculosis; and 2, that it is possible to immunize the animal organism against tuberculosis, as is done in other infectious diseases, and he has good reason to hope for an anti-tuberculous vaccination for man. Dr. Maragliano has shown from his investigation that it is possible in several ways to produce specific immunizing substances in man, but as yet it is impossible to say whether the resistance produced is sufficient or how long it will last. The Maragliano method of treatment is to be given a thorough test by Dr. Flick in his work at the Phipps institute.

Health Report—Typhoid Epidemic.—Since the first of the year, typhoid fever has prevailed to an alarming extent, and at the present time it is widely prevalent, indeed more so, in fact, than for many years. The prospects are that there will be little or no perceptible abatement in the disease until the entire city is supplied with more wholesome water. The present outbreak is widespread, covering every section of the city. The milk supply has been carefully investigated, and convincing proof has been obtained to show that it does not emanate from that source. There were 321 new cases recorded during the week ended April 2, with 24 deaths. During the preceding week there were 148 new cases and 17 deaths. The cases reported during the past week establish a new record, being 20 more than the greatest number during the epidemic of 1902; 32 new cases of smallpox were reported. This is a decrease of 2 over the previous 7 days. The death rate continues high. The total number for the week was 588, an increase of 3 over the preceding week, and an increase of 47 over the corresponding period of last year. The death rate from pneumonia also remains high, 96 persons having succumbed to the disease during the week.

Phipps Institute Dinner.—The anniversary dinner of the Henry Phipps Institute was given by the staff at the University Club, March 28. The delegates to the convention, which was called to consider the question of forming a national organization for the study of tuberculosis, were all invited as guests of the occasion. The feature of the evening was the presentation of a silver pitcher to Dr. Lawrence F. Flick, the director of the Henry Phipps Institute, by the members of the staff, as a token of their esteem. Mr. Henry Phipps, the founder of the institute, was present, and made the presentation in the name of the staff. Among those who spoke after dinner were Drs. Abraham Jacobi, New York City: William H. Welch, Johns Hopkins University; Vincent Y. Bowditch, Boston; John H. Pryor, Buffalo; Charles L. Minor, Asheville, N. C.; George M. Sternberg, former surgeon general of the U. S. Army; John B. Huber, New York; Leonard Pearson, state veterinarian of Pennsylvania; S. A. Knopf, New York; Samuel B. Ward, Albany; Henry B. Holton, Brattleboro, Vt.; John Henry Musser and James Tyson of the University of Pennsylvania, and James C. Wilson of Jefferson Medical College. Dr. L. F. Flick acted as toastmaster and chairman, and Dr. Mazyck P. Ravenel spoke for the staff of the institute.

WISCONSIN.

Half a Century in Practice.—Dr. Francis S. McNamara celebrated his semi-centenary of practice in Milwaukee, and his eighty-fifth birthday anniversary, March 12.

Ban on Public Gatherings.—The prevalence of scarlet fever at Delavan has caused the local health officer to close the public schools and to prohibit public gatherings of all kinds until the epidemic subsides.

Smallpox at Franksville.—German immigrants are said to have brought smallpox to Franksville. There are now 12 cases in that place, and many more have been exposed. The entire town is under strict quarantine.

Fined for Illegal Practice.—Morris J. Kalowsky, Milwaukee, charged with having practiced medicine without a license, pleaded guilty, and was given the minimum sentence, a fine of $50 and costs. He appealed to the Municipal Court.

Lectures on Tuberculosis.—The Wisconsin State Tuberculosis Commission is arranging to give a series of popular lectures on tuberculosis, the object being to educate the people and to arouse public interest in the establishment of a state sanatorium for consumptives.

GENERAL.

Hilo Hospital Closes.—The trustees of Hilo Hospital, Hawaii, have found it necessary, for financial reasons, to close the hospital.

Biloxi Sanitarium Burned.—The Biloxi Sanitarium, Biloxi, Miss., was destroyed by fire, April 5, all the patients being removed in safety.

To Enlarge Yokohama Hospital.—An enlargement from 25 beds to 500 has been decided on by officials of the U. S. Navy for the Yokohama Naval Hospital, and will be rushed to completion.

Mexico Cleans Up.—Tampico and other Mexican cities are undergoing a cleaning up at the hands of their sanitary authorities. Filth is being removed, stagnant pools drained or filled in, and systems of inspection installed.

Ankylostomiasis Investigation in Porto Rico.—The prevalence of ankylostomiasis in Porto Rico is to be the subject of an investigation under the charge of Captain Ashford of the Military Hospital. The government has appropriated $5,000 for the purpose.

Porto Rico Health Affairs.—Dr. Ricardo Hernandez, president of the Superior Board of Health of Porto Rico, has been appointed assistant director of health, charities and correction. Under the new law the Superior Board of Health becomes an advisory board to the director concerning sanitary investigations, and the causes of disease and its suppression.

United States Society for the Study of Tuberculosis.—For the purpose of discussing the question relating to organization for the study of tuberculosis in this country, the following met at the College of Physicians, Philadelphia, on the afternoon of March 28: From Philadelphia: Howard S. Anders, J. M. Anders, William M. Agney, L. Solis-Cohen, Solomon Solis-Cohen, W. M. L. Coplin, Frank A. Craig, Alex. H. Davisson, D. J. McCarthy, J. H. Musser, George W. Norris, Mazyck P. Ravenel, W. B. Stanton, James Tyson, T. Mellor Tyson, Joseph Walsh, W. B. Fetterman, Jr., Lawrence F. Flick, William B. Hackenburg, H. A. Hare, Charles J. Hatfield, H. R. M. Landis, Charles M. Lewis, J. M. Wilcox and J. C. Wilson. From New York City: J. Edward Stubbert, James Alex. Miller, Daniel Lewis, A. H. Doty, H. M. Biggs, A. Jacobi, Edward G. Janeway, S. A. Knopf and Alexander Lambert; also Henry D. Holton, Brattleboro, Vt.; Henry Barton Jacobs, Baltimore; Herbert M. King, Liberty, N. Y.; Charles H. Miner, Wilkesbarre, Pa.; Charles L. Minor, Asheville, N. C.; Estes Nichols, Augusta, Me.; William Osler, Baltimore; Jay Perkins, Providence; W. H. Peters, Providence; C. O. Probst, Columbus, Ohio; John H. Pryor, Ray Brook, N. Y.; DeLancey Rochester, Buffalo; Milton J. Rosenau, Washington; J. T. Rothrock, Mont Alto, Pa.; George M. Sternberg, Washington; Elwell Stockdale, White Haven, Pa.; Arthur K. Stone, Boston; J. M. Taylor, Boise, Idaho; Josephus T. Ullen, Germantown, Pa.; Samuel B. Ward, Albany, N. Y.; F. Forchheimer, Cincinnati; Albert C. Getchell, Worcester, Mass.; Henry G. Beyer, U. S. Navy; John J. Black, New Castle, Del.; Oliver A. Blumenthal, Syracuse, N. Y.; Vincent Y. Bowditch, Boston; M. J. Brooks, New Canaan, Conn.; Herbert C. Clapp and Agnes C. Vietor, Boston; William H. Welch, Baltimore; Francis H. Williams, Boston; B. H. Detweiler, Williamsport, Pa.; J. W. Ellenberger, Harrisburg, Pa. Prof. William Osler of Baltimore presided, and Dr. Henry Barton Jacobs of Baltimore acted as secretary. After a full discussion, participated in by Drs. Daniel Lewis, Minor, Flick, Knopf, Solomon Solis-Cohen, James Tyson, Stubbert, Pryor, Holton, Biggs, Rothrock, Jacobi, Janeway, Hare, Sternberg, Welch, Forchheimer, Ravenel, Rochester and Ward, Dr. Lawrence F. Flick of Philadelphia, offered the following resolution, which was seconded by Dr. Forchheimer and carried unanimously: "Resolved, that we here assembled do now organize ourselves into a United States Society for the Study of Tuberculosis." It was then moved by Dr. George M. Sternberg of Washington and seconded by Dr. Hare of Philadelphia "that the chairman appoint a committee of five to prepare a constitution and by-laws for such a society." This motion was carried unanimously. The chairman appointed Drs. Edward L. Trudeau, Herman M. Biggs, Lawrence F. Flick, William H. Welch and George M. Sternberg. It was further moved by Dr. Sternberg and carried unanimously "that the chairman and secretary of this meeting be ex-officio chairman and secretary of the committee." Dr. Ravenel then moved, and it was unanimously carried, "that it is the sense of this meeting that the committee call us together for organization at Atlantic City during the week of the session of the American Medical Association." The meeting then adjourned.

CANADA.

For Pure Food.—Both an American and a Canadian firm that were selling canned tomatoes, colored with anilin, in Montreal, are being prosecuted for fraud.

Medical Men Going Abroad.—Drs. J. Alex. Hutchinson and George E. Armstrong of Montreal, Murray McLaren of St. John, N. B., and W. G. Anglin of Kingston, will sail from Boston for Naples, April 9, and will journey through Italy, visiting the leading hospitals, and finally going to Vienna. Dr. Anglin has just recovered from a very severe attack of septicemia.

Military Medical Supplies.—The medical branch of the militia department has purchased a large supply of material and equipment that will add materially to the efficiency of this service. The purchases include eighteen ambulance wagons of a new type, designed by Lieutenant-Colonel Fiset, director general of the Canadian Army Medical Service, each wagon having room in it for four patients lying down, or thirteen sitting up.

Toronto Vital Statistics for March.—The following shows the comparison between the births, marriages and deaths in Toronto in March in 1903 and in 1904: Births, 377 and 437; marriages, 134 and 128; deaths, 366 and 354. As in 1903 there were no deaths from smallpox in March; scarlet fever, 2; diphtheria, 17; measles, 1; typhoid, 1; tuberculosis, 30; pneumonia, 42. The number of deaths five years and under, 126; over seventy years of age, 57. Deaths from pneumonia in January numbered 56; in February, 36; March, 42. The medical health officer states that Toronto has not been so free of scarlet fever for years.

Ontario Health Statistics for February.—During February only 680 divisions made returns to the Ontario Board of Health, and these show that the deaths were 2,332 in a population of 1,924,976, or at the rate of 14.4 per thousand. For the same month last year, a population of 1,941,632 reported 2,176 deaths. During February there were 41 cases of smallpox in the province in 11 places, with 1 death; 251 cases of scarlet fever in 62 places, with 13 deaths; 289 cases of diphtheria in 55 places, with 42 deaths. Measles was reported in 41 municipalities, with 1 death. Whooping cough occurred in 9 places, typhoid fever in 23, and consumption in 106.

No Adulteration Found in Canadian Liquors.—The department of inland revenue has issued a bulletin on distilled liquors. The samples analyzed consisted of rye whiskey, 91; white, 30; Scotch, 24; Irish, 2; gin, 27; rum, 12; brandy, 30; total, 216. Mr. McGill, who made the analysis, states that no deleterious substances have been found in these samples. In accordance with special instructions, he made an examination for alkaloids in all whiskey samples having less than 75 per cent. proof strength. A negative result was obtained in every case. He found some of the samples had been watered, particularly gin, which showed a noteworthy falling off in strength.

Ontario Physicians Fail to Report Typhoid Fever Cases.—Dr. Hodgetts, the secretary of the Ontario Board of Health, is endeavoring to enforce the law requiring all cases of infectious and contagious diseases to be reported. He finds that in 1902 there were announced to the department 1,542 cases of typhoid fever throughout the province, while the hospital statistics show 2,007 cases. In 1903 returns from the 700 divisions showed 1,012 cases, while in the hospitals there were 1,918 cases. He states that during the past few months several outbreaks of typhoid fever have been covered up by medical men failing to report, and that he may have to resort to prosecutions in order to wake up the physicians and to protect the public.

FOREIGN.

Plague in Peru.—Lima, Peru, is suffering from the plague. There were 32 cases in the week ended March 26 and 4 deaths March 30.

Ecuador Fights Mosquitoes.—Ecuador is carrying on an active campaign against yellow fever and malaria. Mosquitoes are being destroyed and circulars of information are being distributed, giving the regulations of the U. S. Public Health and Marine-Hospital Service.

More Plague in India.—The plague is said to be on the increase in India. For the week ended March 19 there were 40,527 deaths. The weekly rate in the Punjab and in the northwest provinces is 10,000 each, in the Bombay presidency the deaths number 8,500, and in Bengal 5,000.

Typhoid Fever at Paris.—There have been a number of cases of typhoid fever at Paris, the maximum in one week reaching 147. The proportion has been about one case per 10,000 inhabitants. One ward (Ménilmontant), although inhabited by the very poor, has always been remarkably exempt from typhoid fever, and this immunity was retained through the present epidemic.

Supervision of Infant Foods Needed in England.—At an inquest on the death of a child from convulsions, said to be due to the use of improper proprietary foods, held at the Wandsworth coroner's court, England, April 1, attention was called to the English laws which allow the sale, without supervision or inspection, of patent foods for children. The coroner said that such foods, sold by enticing advertisements, were responsible for the deaths of many children, and made the same statement about patent medicines. He urged that the government take up the matter.

A Mounted Red Cross Battalion.—A wealthy Russian has organized a mounted battalion, with 50 horses, to carry the wounded from the battlefield and give them medical aid. The horses carry folding litters, tents, etc. The officers of the company consist of 3 physicians, 4 assistants, 50 mounted attendants and 8 servants. Dr. W. Halle of Riga has charge of the medical department and the founder of the company, Mr. Rodzjanko, will lead it in person, besides paying all the expenses of its maintenance. The instruments were purchased in Berlin and Stockholm.

Vaccination Against Syphilis.—Metchnikoff inoculated a chimpanzee with virus from a baboon. No secondary manifestations have appeared during the ninety days since. Further inoculation with human virus has proved equally negative There is a possibility that the first inoculation from the baboon conferred immunity to the human virus. He is awaiting the arrival of a consignment of chimpanzees to repeat the experiments on a large scale. It will be remembered that Roux and Metchnikoff have devoted the large prizes bestowed on them last year to this research on anthropoid apes.

The Fourth International Home Relief Congress will be held at Edinburgh, June 7-10, with the object of discussing the ways in which aid can best be given the distressed poor in their own homes. The medical bearing of the following portion of the work planned makes it worth noting:

SECTION IV.—SICK ADULTS.

1. The Organization of the Home Treatment of Pulmonary Tuberculosis.
2. The Relation Between Hospital and Home Relief of Sick Poor.
3. The Best Scheme of Home Attendance on Puerperal Women in Larger Centers.

SECTION V.—INSANE AND EPILEPTICS.

1. The Best Method of Administering the System of Family Care of the Insane, and the Best System of Supervision.
2. After Care of Friendless Patients Discharged from Asylums
3. The Supervision and Home Care of Children and Young Adults Who Are Mentally Defective.
4. Epileptic Colonies.

Correspondence may be addressed to Edward T. Devine, 105 East Twenty-second Street, New York City.

LONDON LETTER.

Outbreak of Plague in Johannesburg.

An outbreak of plague in Johannesburg has caused considerable anxiety in England, as the strongly criticised intention of the government to import Chinese to work the mines has just been promulgated. Ten fresh cases are reported to-day.

and the mortality now amounts to 65 whites and 60 colored persons. The coolies are being rapidly removed to a new location outside the town. As the reports in The Journal show, plague has existed in South Africa for some years, though only in Port Elizabeth has it assumed considerable proportions. According to the last report no case of plague exists in Cape Colony, but rats are still reported as infected at Port Elizabeth and East London. In 1903 there were 135 deaths from plague in Cape Colony. Of these only 18 occurred in the last six months, so that the disease was declining. How the infection was carried to Johannesburg is not known. As adjacent districts are not infected it is thought to have been carried by rats in grain or other merchandise sent by rail. The disease is chiefly of the pneumonic variety.

Correspondence.

Cause of Increase in Pneumonia.

Indianapolis, March 28, 1904.

To the Editor:—A study of the Indiana mortality statistics and the morbidity and weather reports furnish data which seem to give some light on the cause of the recent marked increase in the pneumonia death rate.

Comparing the periods made up of November and December, 1900, and January and February, 1901, as the first period, and November and December, 1903, and January and February, 1904, as the second period I find that in the first there were 1,720 deaths, the weather was not severe, measles, influenza and "colds" were very prevalent and natural gas with no smoke was the almost universal fuel. The weather being mild, and the use of soft coal, as suggested by Dr. Lindsley of Connecticut, were not the cause of the increase in pneumonia which appeared in the period named. In the second period there were 1,784 pneumonia deaths, only 64 more than in the first, and the weather was very severe, soft coal was the universal fuel, and measles, influenza and colds very prevalent. It appears, therefore, that in the two periods separated by three years, they were closely alike in number of pneumonia deaths, also in the fact of prevalence of measles, influenza and "colds," but unlike in regard to weather and soft-coal smoke. Further, it appears from an examination of the death certificates of the two named periods, that an unusual proportion of pneumonia deaths among children occurred. For instance, in February, 1904, of the 711 pneumonia deaths 268 or 38.2 per cent., were under five years of age, and in February, 1901, there were 608 pneumonia deaths, with 237, or 39 per cent., under five years. Such a coincidence under the circumstances is certainly notable. In the two intervening Februarys, namely, of 1902 and 1903, we note fewer pneumonia deaths with blustering cold weather, plenty of coal smoke, but not a remarkable presence of measles, influenza and "colds" and a lower pneumonia death rate among the children. So far as Indiana is concerned it seems we are constrained to conclude that the increase in pneumonia attended the greater susceptibility caused by measles, influenza and "colds." J. N. Hurty,

Secy. Indiana State Board of Health.

Priority in Methods of Closure of Abdominal Wounds.

Philadelphia, April 1, 1904.

To the Editor:—In The Journal of the American Medical Association, March 12, p. 737, is an abstract of an article entitled "Abdominal Aponeuroses." The author of the article Dr. Winslow, seems to be unaware of the fact that his proposals of new methods and new principles in the closure of abdominal wounds are by no means novel. They have been in daily use in my hands for the last seven years, and intermittently, since 1894. The questions at issue were published by me in the *American Journal of Obstetrics*, April, 1897, the paper entitled "A New Method of Suturing the Abdominal Wall in Celiotomy," being read before the section of gynecology of the College of Physicians of Philadelphia, Jan. 21, 1897. The principles discussed by Dr. Winslow were further elaborated by me in a paper entitled "Remarks on the Influence of Technic on the Results of Closure of Wounds of the Abdominal Wall," read before the Obstetrical Society of Boston, Nov. 21, 1899, and published in the *Boston Medical and Surgical Journal*, March 8, 1900. These principles have been discussed by me on numerous occasions since these dates. Charles P. Noble.

Queries and Minor Notes.

Anonymous Communications will not be noticed. Queries for this column must be accompanied by the writer's name and address, but the request of the writer not to publish his name will be faithfully observed.

PRIORITY AS TO TURTLE SERUM.

Charleston, Mo., April 2, 1904.

To the Editor:—In abstract 96, on page 136, of The Journal, Jan. 9, 1904, I see what I term an infringement on my rights as a discoverer. If you will consult The Journal you will see that I wrote the original article on "Turtle Serum," and among other things said that this serum was "specific" for all maladies, and just why a Dutchman and a foreigner should try to usurp my prerogative I am unable to see. The *Deutsche medicinische Wochenschrift*, of Berlin and Leipsic, is the journal from which you abstract this effort on the part of a foreigner to supplant a S. E. Missourian—a swamper. Now I feel that you have too much respect for Missouri and for one of its humble citizens to allow this foreigner (Dr. Friedmann) to undermine me in any such way. I informed your readers where they could get this "turtle serum," told them plainly of Dr. Rushe's phenomenal success, etc., and now here, at this late date, to see such effrontery as is displayed by Dr. Friedmann makes me tired. Please come to my relief and tell your readers that when it comes to "turtle serum" I am "cock of the walk" and can whip any man that dare trespass on my rights. W. P. Howle, M.D.

Answer.—Dr. Howle's claim of priority is based on his publication in The Journal, Nov. 1, 1902, p. 1124.

INTERFERENCE—GUARANTEEING CURE—BETTING.

April 2, 1904.

To the Editor:—A patient declined my services because I would not guarantee to cure him, and went at once to the office of a physician who professes great friendship for me and who is a member of the various societies. This physician told the patient he would not guarantee a cure, but would "bet him" (and did bet him, committing the agreement to paper and putting up the money) that he could cure him. Has the brother erred? He was aware of the patient's conduct with me. —— H.

Answer.—It is almost impossible to believe that a physician would thus gamble on the prospect of curing a patient. Our correspondent's statement is an *ex parte* one, and we should like to hear the other side before commenting to any extent. We may be allowed the general remark that either betting or guaranteeing a cure is incompatible with respectability and honor. As to the point whether the second physician had a right to take the case, this depends on whether the patient discharged our correspondent or not. If he did, any other physician could take the case.

REQUIREMENTS FOR PRACTICE IN MEXICO.

Sault Ste. Marie, Mich., March 25, 1904.

To the Editor:—Will you tell me through The Journal the requirements of the laws that govern the practice of medicine in old Mexico?

M. D. L.

Answer.—We believe that the practice of medicine in Mexico is free, but to have any legal standing and to be able to sign death certificates, to give testimony or to hold medical positions, one will have to pass an examination varying, we understand, in the different states. In the City of Mexico it is said to be rather severe in the Spanish language. There would probably be some inconveniences in general practice without such a license in certain states of the republic. In others, a license may be less a requisite.

REQUIREMENTS FOR PRACTICE IN CANADA.

Monroe City, Mo., April 1, 1904.

To the Editor:—Will you please inform me of the requirements to practice medicine in the northwest territory of Canada? If examination is required state date and place and name of secretary.

B. S. Lincoln.

Answer.—Unless one has a British or Canadian qualification he must possess a diploma recognized by the board from an institution requiring a four-year course and must pass an examination. We have not seen the list of recognized institutions. The registrar is J. D. Lafferty, M.D., Calgary, N.W.T., Canada.

RECIPROCITY IN NEW YORK, WISCONSIN AND MINNESOTA.

Run: New York does not reciprocate with any other state at the present time.

Colorado: *Minnesota has no provision for reciprocity in its* medical practice act. Wisconsin reciprocates with Ohio, but not with Colorado. Since these arrangements are dependent on the by-laws of the board they are liable to change.

POSTMORTEM ON A DEAD BODY.

A reader calls our attention to the following definition in Dorland's American Pocket Medical Dictionary: "Autopsy. Postmortem examination of a dead body." He asks us if the definition is correct. Yes, very much so.

FINSEN LIGHT LITERATURE.

Dr. A. W. Hammer, Philadelphia: *An article* on the Finsen light appeared in The Journal, April 12, 1902. Longmans, Green & Co., New York City, publish a book on "Finsen Phototherapy."

Marriages.

W. Ed. Grant, M.D., to Mrs. Daisy D. Walker, both of Louisville, March 24.

Carlton W. Cragg, M.D., to Miss Aline Williams, both of Cincinnati, March 24.

Reginald Stonestreet, M.D., Paragon Mills, Tenn., to Miss Carrie Savage of Nashville, March 23.

Mark D. Ethridge, M.D., to Miss Mary Elizabeth Bostick, both of Sandersville, Miss., March 24.

Greer Baughman, M.D., Richmond, Va., to Miss Wilhelmina Agnes Reeve of Washington, D. C., April 6.

James Edward Gill, M.D., U. S. Navy, to Miss Lucy Hamilton Armes of Birmingham, Ala., March 24.

Bernard Singleton Gostin, M.D., Macon, Ga., to Miss Katharine Elizabeth Dewson of New York City, April 4.

Deaths.

Louis A. Kengla, M.D. University of Georgetown, Washington. D. C., 1886, a member of the American Medical Association and editor of the *Occidental Medical Times*, died at his home in San Francisco, March 26. The *Sacramento Bee*, in an editorial comment on his death, pays the following tribute:

> The fearless and broad-minded course he pursued with regard to bubonic plague in San Francisco commended him to the esteem of the profession and the gratitude of the public. From the first he stood for the policy of telling the truth, and denounced the miserable attempts at concealment and falsification which for a time threatened to result in a general eastern quarantine against this state. In adhering to this sound and honest course he suffered in business and was exposed to much annoyance, but he never faltered in his uncompromising, unflinching devotion to right and duty. He had the satisfaction of living to see vindication of the truth and official recognition by the state health authorities of the existence of the disease whose presence has so long been falsely and foolishly denied by the press of the city.

John Metcalf Polk, M.D. Cornell University Medical College, New York, 1899, died from *pneumonia* at his home in New York City, March 29, after an illness of ten days, aged 28. Dr. Polk was the son of Dr. William M. Polk, and graduated second in his class. He served as interne in Bellevue Hospital, and was afterward made adjunct assistant physician to that institution. During the past winter he had been conducting experimental research on the hemolytic action of the blood in infectious diseases. This work, which promises to be of value, was practically completed at the time of his death.

Abram B. Arnold, M.D. Washington University School of Medicine, Baltimore, 1848; president of the Baltimore Medical Association, 1871-1872; president of the Medical and Chirurgical Faculty of Maryland, 1877-1878; professor of practice of medicine in Washington University, 1872-1877; professor of nervous diseases, College of Physicians and Surgeons, 1877-1889, and afterward professor emeritus; a practitioner of repute, and a linguist of note, died at his home in San Francisco, March 28, aged 84. From 1848 to 1902 he practiced in Baltimore.

Charles C. Carter, M.D. Bellevue Hospital Medical College, New York, 1876, assistant surgeon general of Illinois; a member of the American Medical Association, Association of Military Surgeons of the United States, Illinois Association of Military Surgeons, Illinois State Medical Society; Iowa and Illinois Central District Medical Society and Rock Island County Medical Society; a prominent and beloved physician of Rock Island, died at his home in that city, April 2, from pneumonia, after an illness of six days, aged 51.

Israel Parsons, M.D. College of Physicians and Surgeons, New York, 1848, a member of the New York State and Onondaga County medical societies, and the Syracuse Academy of Medicine, died at his home in Marcellus, N. Y., March 20, after an illness of five days, aged 82. In 1899 the Onondaga County Medical Society gave a banquet in honor of Dr. Parsons' semi-centenary in medicine.

Stephen Paul Truex, M.D. Long Island College Hospital, Brooklyn, 1891, of Brooklyn, instructor in general surgery and surgical anatomy in the Post-Graduate Medical School and Hospital, member of the Kings County Medical Society, and gynecologist to Bushwick Central Hospital, Brooklyn, died suddenly while performing an operation in that institution from acute dilatation of the heart, March 31, aged 48.

Arthur R. Simmons, M.D. College of Physicians and Surgeons, New York, 1875, Utica, N. Y., died at his home in that city, March 27, from heart disease. The Utica Medical Library Association held a memorial meeting, March 29, at which tributes were paid to the memory of Dr. Simmons, and resolutions were adopted by the medical staff of St. Luke's Hospital.

Elijah P. Noel, M.D. Starling Medical College, Columbus, 1890, expert in the office of the city attorney, Chicago, coroner's physician of Cook County from 1896 to 1900, assistant professor of physiology at Rush Medical College, died from tuberculosis, March 29, at Phoenix, Ariz., after an illness of seven years, aged 39.

Washington H. Baker, M.D. University of Pennsylvania, Philadelphia, 1875, for several years assistant to Professor Penrose in the University Hospital; visiting physician to St. Joseph's Hospital, and a surgeon in the Second Infantry, N. G. Pa., died March 31, at his home in Philadelphia, from apoplexy, aged 52.

Percy L. Jermane, M.D. Jefferson Medical College, Philadelphia, 1892, of Holton, Kan., a member of the American Medical Association, and one of the foremost surgeons of Northeastern Kansas, died at Stormont Hospital, Topeka, March 22, from general peritonitis following an operation for appendicitis, aged 36.

Harry J. Chapman, M.D. University of Pennsylvania, Philadelphia, 1895, of San Antonio, Texas, formerly physician to Winyah Sanitarium, Asheville, N. C., a member of the American Medical Association, and of the Texas Medical Association, was shot and instantly killed, while driving, March 25, aged 37.

John Paul Dombrowski, M.D. University of Berlin, Germany, 1880, a member of the American Medical Association, one of the most prominent specialists on diseases of the eye in central Illinois, died at his home in Peoria, March 28, from pneumonia, after an illness of ten days, aged 47.

David Mackay, M.D. University of Glasgow, Scotland, 1855, surgeon in the Crimean and Civil wars; later city physician of New Orleans, and for six years surgeon general of the Grand Army of the Republic, died at his home in Dallas, Texas, March 23, aged 71.

George H. Butler, M.D. Bellevue Hospital Medical College, New York, 1869, a member of the New York County Medical Society and New York Academy of Medicine, died at his home in New York City, from throat disease, March 28, aged 61.

Albert Stanley Dolan, M.D. University of Michigan Homeopathic Medical College, Ann Arbor, 1882, formerly assistant at the Southern California Hospital for the Insane, died at Riverside, Cal., March 21, from heart disease.

Charles E. Wetton, M.D. New York Homeopathic Medical College and Hospital, 1902, Syracuse, N. Y., died at the Hahnemann Hospital, New York, March 26, from cerebral hemorrhage, after an illness of four weeks, aged 41.

John G. Brooks, M.D. Jefferson Medical College, Philadelphia, 1851, ex-mayor of Belfast, Maine, state senator in 1873, and representative in 1880, died at his home in Belfast, March 23, after a long illness, aged 83.

Lawrence L. Glover, M.D. Jefferson Medical College, Philadelphia, 1882, ensign and assistant surgeon in the Naval Reserve of New Jersey, died at his home in Haddonfield, N. J., March 21, from pneumonia, aged 37.

Alfred Duperier, M.D. Tulane University, New Orleans, 1847, who rendered effective service in the yellow fever epidemics of

1853 and 1867 in southwestern Louisiana, died at his home in New Iberia, La., aged 77.

Harry S. Dissler, M.D. Medico-Chirurgical College, Philadelphia, 1903, of Schoeneck, Pa., died from acute nephritis at the Medico-Chirurgical Hospital, Philadelphia, at which he was resident physician, March 20, after an illness of one week, aged 22.

J. W. Crowley, M.D. St. Louis Medical College, 1867, chief surgeon of the Thirteenth Missouri Cavalry in the Civil War, died suddenly in Cairo, Egypt, March 15, after an extended period of ill health.

Morris Silk, M.D. College of Physicians and Surgeons, New York, 1902, resident physician at Hart's Island, died at his home in New York City, March 28, after an illness of eight weeks.

John R. Jones, M.D. University of Pennsylvania, Philadelphia, 1858, surgeon in the Confederate service during the Civil War, died at his home in Emporia, Va., March 25, aged 69.

John A. Anthony, M.D. Rush Medical College, Chicago, 1887, for 15 years at Chenoa, Ill., died at a hospital in Boise, Idaho, where he had recently located, from pneumonia, March 26.

Clinton Munson, M.D. Hahnemann Medical College, Chicago, 1872, of Tacoma, Wash., died from septicemia after a long illness in a sanatorium in San Francisco, March 20.

John T. Steele, M.D. University of Pennsylvania, Philadelphia, 1879, who retired from practice several years ago, died at his home in Pulaski, Tenn., March 10, aged 78.

Emil A. Haag, M.D. Kentucky School of Medicine, Louisville, 1892, of Indianapolis, died suddenly from heart disease at the home of his mother in that city, April 3, aged 41.

Joseph W. Sharp, M.D. University of Pennsylvania, Philadelphia, 1850, died from asthma after a long illness at his home in Dayton, Pa., March 2, aged 69.

Mills Olcott Carter, M.D. Dartmouth Medical College, Hanover, N. H., 1863, surgeon during the Civil War, died recently at his home in Lowell, Mass., aged 64.

John H. Hunter, M.D. Atlanta (Ga.) Medical College, 1888, died at his home in Powder Springs, Ga., March 23, from consumption, after a long illness.

W. F. Dohrmann, M.D., of San Francisco, died at his home in Santa Barbara, Cal., March 26, from pneumonia, after an illness of one week, aged 35.

Emil Schottenfels, M.D. Bennett College of Eclectic Medicine and Surgery, Chicago, 1874, died at his home in Chicago, March 31, from pneumonia, aged 74.

Mary Denison Moss, M.D. Boston University School of Medicine, 1875, died at her home in Providence, R. I., from heart disease, March 25, aged 64.

Elmer E. Prescott, M.D. Rush Medical College, 1893, died at his office in Chicago, from the effects of atropin, self-administered, March 30, aged 41.

Austin D. Smith, M.D. Geneva (N. Y.) Medical College, 1869, died suddenly at his home in East Pembroke, N. Y., March 25, from apoplexy, aged 73.

Morris Bailey, M.D. Penn Medical University, Philadelphia, 1865, died at his home in Titusville, Pa., March 17, after a long illness, aged 85.

Birney R. Goold, M.D. Rush Medical College, Chicago, 1896, died from heart disease at his home in Chicago, March 29, after a short illness.

Solomon P. Allen, M.D. Geneva (N. Y.) Medical College, 1867, died at his home in Lestershire, N. Y., March 23, after a long illness, aged 59.

Frederick H. Austin, M.D. Indiana Eclectic Medical College, Indianapolis, 1885, was found dead in his office in Jamestown, Ind., March 26.

Mark J. Bixby, M.D. College of Physicians and Surgeons, Boston, died recently at his home in West Fairlee, Vt., from paralysis.

W. W. Nash, M.D. Kentucky School of Medicine, Louisville, 1882, died from pneumonia at his home in Pheba, Miss., March 28.

William B. Burland, M.D. McGill University, Montreal, 1872, died at his home in Montreal, March 19, from pneumonia, aged 59.

Edward P. Woodward, M.D. Yale Medical School, New Haven, 1860, retired, died at his home in Bristol, Conn., March 19, aged 67.

John Gilwee, M.D. St. Louis Medical College, 1876, died suddenly at his office in St. Louis, March 25, from heart disease, aged 68.

Winfield R. Robison, M.D. Medical College of Georgia, Augusta, 1875, died recently at his home in Milledgeville, Ga.

Louis D. Cyr, M.D., the oldest physician of the Upper Peninsula, died at his home in Negaunee, Mich., March 27, aged 68.

Edwin B. Mack, M.D. University of Vermont, Burlington, 1887, died recently at his home in Woodstock, Vt., aged 42.

Giovanni Demaglianis, M.D. University of Parma, Italy, 1890, of Coal City, Ill., died recently at South Wilmington, Ill.

Harry J. Combel, M.D. Tulane University, New Orleans, 1897, died at his home in New Orleans, March 24, aged 28.

J. J. Buster, M.D. Medical College of Georgia, Augusta, 1883, died recently at his home in Mount Willing, S. C.

C. H. Roberts, M.D., died suddenly at his residence in Wolfe City, Texas, March 25, from heart disease.

Nathaniel T. Clarke, M.D., died at his home in North Syracuse, N. Y., February 25, aged 76.

Isaac Sides, M.D., retired, died at his home in Colon, Mich., March 22, aged 84.

Book Notice.

The Complete Anas of Thomas Jefferson. Edited by Franklin B. Sawvel, Ph.D. Cloth. Pp. 283. Price, $1.50. New York: The Round Table Press. 1903.

This is a compilation of notes jotted down by Thomas Jefferson during the important period of 1791 to 1809. The anas are items of "passing transactions," private notes, opinions on current topics—just such items as one would record in a well-kept diary, but instead of being written in a book, they were put "on loose scraps of paper taken out of my pocket in the moment, and laid down to be copied fair at leisure, which, however, they hardly ever were." They are interesting and instructive as showing the personal views of one who helped to mold the opinion of men who founded our government and who framed the constitution under which we live. A brief biographical sketch of Jefferson is given, and his first inaugural address appears as an appendix. The editor could have made the work much more instructive had he inserted explanatory footnotes occasionally; as it is, many of the "notes" are unintelligible since the reader is in the dark regarding the subject matter. Another serious fault, and it is inexcusable, is that there is no index. The book is well gotten up, is well printed and bound, and makes a handsome appearance.

Association News.

Atlantic City Hotels.

For a list of the hotels at Atlantic City and their prices, see The Journal, April 2, page 912.

Other Meetings at Atlantic City.—The Gastro-Enterological Association.

In addition to the full section programs of the American Medical Association at the annual session at Atlantic City, June 7 to 10, additional attraction for the visitor is found in the other societies that are to meet there at about the same date. The American Gastro-Enterological Association is one of these; it will meet June 6 and 7, and the chief subject on the preliminary program is "Gastric Ulcer." There will be a symposium in some fifteen or more subdivisions by as many well-qualified men.

New Members.

List of new members for the month of March, 1904:

ALABAMA.

Lindsey, E. C., Florence.
Maxwell, C. K., Kellyton.
Pugh, B. B., Ironaton.
Odom, J. N., America.
Perry, H. G., Greensboro.
Henderson, S. C., Brewton.

ARKANSAS.

Wootton, W. T., Hot Springs.
Jennings, Ches., Little Rock.
Jones, Edw. D., Russellville.
Latimer, Newton J., Corning.
Hightower, Wm. M., Grapevine.

CALIFORNIA.

King, Jos. M., Los Angeles.
Fox, W. H., Los Angeles.
Lang, Paul, Oakland.
Dell, Lillian A., Oakland.
Perry, Alf. W., San Francisco.
Steltzner, Emil, San Francisco.
Buckley, V. P., San Francisco.
Hill, Harold P., San Francisco.

Quinan, Clarence, San Francisco.
Woolsey, C. H., San Francisco.
Lawry, Olin J., Redding.
Snow, Wm. F., Standford Univ.
Wickman, W. J., San Rafael.
Delamere, Henry S., Ferndale.

COLORADO.

Moore, T. B., Canon City.
Keller, Wm. N., Salida.
Edwards, J. L., Florence.

CONNECTICUT.

Down, Edwin A., Hartford.
Winne, Wm. N., New Haven.
Bartlett, Chas. J., New Haven.

DISTRICT OF COLUMBIA.

Hunt, Reid, Washington.
Gill, Wm. T., Washington.

FLORIDA.

Bartlett, Chas. W., Tampa.
Caldwell, Frank H., Tampa.
Newson, W. V., Ocala.
Smith, Dan M., Ocala.
Peek, Leon A., Melbourne.
Waggener, Richard, Warrington.
Glover, Geo. B., Monticello.
Welch, Geo. E., Palatka.
Howard, N. de N., Sanford.
Harris, R. L., Orlando.
Kennedy, S. R. M., Pensacola.

GEORGIA.

Van Dyke, Arthur H., Atlanta.
Crawford, J. M., Atlanta.
Johns, J. H., Atlanta.
Hoke, Michael, Atlanta.
Bradley, J. H., Macon.
Weichselbaum, J., Savannah.

IDAHO.

Stoneburner, J. N., Leland.

ILLINOIS.

Colloran, J. Edgar, Chicago.
Ladova, Rosalie M., Chicago.
Guagliata, Vincent, Chicago.
McGowan, M. J., Chicago.
Wynekoop, C. I., Chicago.
Brown, F. I., Chicago.
Harvey, And. M., Chicago.
Haag, Frances J., Edwardsville.
Davis, Homer W., Alton.
Wilson, Harry E., Sandoval.
Friend, Wm., Sumner.

INDIANA.

Fry, Berna C., Indianapolis.
Scott, Eueldas K., Hartford City.
Button, C. E., Crown Point.
Kurtz, F. B., Princeton.

IOWA.

Walker, Harry T., Dubuque.
Hibbs, G. B., Mitchellville.
Hill, Wm. F., Beaman.
Hansen, Andreas S., Waterloo.
Pease, C. I., Linn Grove.
Bishop, Carl S., Glasgow.
Foley, Fred. C., Newell.
Harvey, Leonard J., Alta.
Reid, Duncan, New Hartford.
Strout, A. O., Parkersburg.
Hanson, A. W., Hanlontown.

KANSAS.

Snider, S. J., Courtland.
Gaines, F. M., Solomon.

KENTUCKY.

McKinney, Wm. Thos., Louisville.
Pfingst, Adolph O., Louisville.
Quinby, S. C., Louisville.
Duncan, Ellis, Louisville.
Smock, B. W., Louisville.
Overall, John B., Dacon.
Albright, G. H., Barbourville.
Young, C. H. O., Flippen.
Yeaman, Malcolm H., Lakeland.
Hart, Robt. S., Pisgah.
McBee, K. S., Jonesville.
Bugg, T. D., Bardwell.
Owens, Jno. R., Arlington.
Rees, J. Milton, Cynthiana.
Sisk, Amplias O., Earlington.
Barkley, C. M., Leesburg.
Stith, Sam'l H., Ekron.
Tyldesley, Harry, Central City.

LOUISIANA.

Dillon, J. R. M., New Orleans.
Le Blanc, Henry A., Paincourtville.
Lynch, Robt. C., Natchitoches.

MAINE.

McDonough, Edw. J., Portland.
Chellis, E. O., Portland.

MARYLAND.

Spruill, St. Clair, Baltimore.
Gibbons, Wm. H., Croom.

MASSACHUSETTS.

Coggeshall, F., Boston.
Germain, Harry H., Boston.
Jack, Edwin Everett, Boston.
Holt, Frank Hammett, Boston.
Taylor, Fred'k W., Cambridge.
Whoriskey, John J., Cambridge.
Boyer, Jos. N., Springfield.
Benner, Richard S., Springfield.
Baylies, Andrew, Worcester.
Tripp, G. Alston, Worcester.
Farnham, J. M. W., Worcester.
Whiting, Geo. W. W., Somerville.
Hodgdon, Ralph F., Somerville.
Adams, Chas. B., Pittsfield.
Cilley, Dan'l P., Westboro.
Woodworth, D. S., Fitchburg.
Merritt, L. A., Bridgewater.
O'Brien, Chas. Thos., Woburn.
Blood, Robt. A., Charlestown.
Brown, Geo. A., Barre.
McCabe, John J., Holyoke.
Generoux, J. O., Webster.
De Land, Chas. A., Warren.
Handy, Harry T., Hyannis.
Ayer, Thos. H., Westboro.
Curtis, Henry F., Somerville.
Bliss, Jesse L., Holyoke.
Cooley, Abbott L., Chicopee.

MICHIGAN.

Loree, Ira Dean, Ann Arbor.
Getchell, A. T., Mt. Pleasant.
Church, Starr K., Marshall.
Allen, R. O., Remus.

MINNESOTA.

Staples, H. L., Minneapolis.
Johnson, Carl E., Clinton.
Johnson, A. Einar, Madison.
Nelson, N. Amherst, Dawson.

MISSISSIPPI.

Goodwin, F. G., Prentiss.
Seale, Robt. A., Holly Springs.
Ethridge, Mark D., Sandersville.

MISSOURI.

Heddens, Jas. Weir, St. Joseph.
Binnie, J. F., Kansas City.
Elbrecht, O. H., St. Louis.
Jennings, John E., St. Louis.
Clark, John W., Cartersville.
Norwine, J. J., Poplar Bluff.
Seybold, Ira W., Poplar Bluff.
Kincheloe, M. B., Joplin.
Tatum, Harry E., Brunswick.
Chastain, C. H., Farley.
Reagan, Chas. W., Macon.
Williamson, C. W., Poplar Bluff.
Foster, J. P., Lacrosse.
Detweiler, Andrew J., Columbia.

MONTANA.

Larson, Carl L., Butte.

NEBRASKA.

Lindquist, A. B., Omaha.
Himrod, Marg. C., Butte.
Cook, C. C., Scotia.
Koetter, Max, Oakdale.
Weirick, Geo. A., Hastings.
George, Wm. A., College View.

NEW HAMPSHIRE.

Smith, A. Noel, Dover.

NEW JERSEY.

Finn, Jos. F., Jersey City.
Jacobson, F. C., Newark.
Bianchi, Angelo R., Newark.
Reason, J. J., Carteret.
Bradner, Fred'k C., Englewood.
Hoagland, L. B., Oxford.
Saulsberry, C. E., Mays Landing.

NEW YORK.

Busch, Fred'k C., Buffalo.
Jones, Edw. W., Buffalo.
Sweeney, J. A. V., New York City.
Holt, L. Emmett, New York City.
Murphy, R. F., New York City.
Stedman, Wm. G., Rochester.
Goddard F. H., Rochester.
Hall, Dudley M., Glen Falls.
Nelson, John W., Jamestown.
Hutton Edw. H., Corning.
Knowles, Chas. P., Olean.

NORTH CAROLINA.

Zimmerman, Chas. St. V., Asheville.
Ledbetter, Jas. McQ., Rockingham.
Edwards, Geo. P., Sylva.

OHIO.

Carothers, Robt., Cincinnati.
Hannum, E. S., Cleveland.
Season, Edwin H., Cleveland.
Rauschkoll, John, Columbus.
Doherty, E. W., Toledo.
Gibson, Jas. T., Lynchburg.
Murrell, U. G., New Burlington.
Zeller, H. Rush, St. Paris.
Kendall, B. J., Tippecanoe City.
McAuliffe, D. L., Botkins.
Barr, Wm. E., London.

OKLAHOMA.

Barnes, John Henry, Jet.

OREGON.

Barnes, E. W., North Powder.

PENNSYLVANIA.

Friesell, H. Edmund, Pittsburg.
Buckley, Albert C., Philadelphia.
Pickett, Wm., Philadelphia.
Graf, Edmund L., Philadelphia.
Bardsley, G. Ashton, Philadelphia.
Pancoast, H. K., Philadelphia.
Weisenburg, T. H., Philadelphia.
Mulrenan, John P., Philadelphia.
Eckfeldt, J. W., Philadelphia.
Royer, B. Franklin, Philadelphia.
Bowman, Frank S., Philadelphia.
Colgan, Jas. F. E., Philadelphia.
Hirsh, A. B., Philadelphia.
Stein, Geo. W., Norristown.
Miller, John Harvey, Harrisburg.
Cashman, Thos. F., Washington.
Davis, A. F., St. Mary's.
Mastin, Charlotte E., Wellsboro.
Booth, Alex. N., Bentleysville.
Schmehl, C. W., Warren.
McGirk, Chas. E., Phillipsburg.

RHODE ISLAND.

Hawkins, J. F., Providence.

SOUTH DAKOTA.

Kenney, H. T., Bruce.
Hill, Leslie G., Watertown.
Treon, F., Chamberlain.
Van Daisem, Friede, Huron.

TENNESSEE.

Wright, Galen R., La Follette.
Shepherd, Irwin J., La Follette.

TEXAS.

Irvin, Edgar H., El Paso.
Kelley, J. A., Ft. Worth.
Terrill, Jas. J., Galveston.
Cox, Robt. L., Houston.
Skipper, Robt. W., Lovelady.
Hall, Robt. Lee, Elmo.
Hall, Chas. Edw., Lindale.
Simons, Jas. Elmo, Bay City.
Harrell, Thea H., Hutto.
Crook, W. A., Lindale.
Bass, Virgil M., Waxahachie.
Harris, Robt. Lee, Rio Vitta.
Dyer, John F., Chicola.
Meyer, Joseph, Paris.
Hines, B. F., Tyler.
Batts, Edw. Lee, San Angelo.
Rowland, Oliver Jas., Sealy.
Waters, Henry W., Montgomery.
Weinfield, L. M., Cestohawa.

UTAH.

Joyce, Robt. S., Ogden.

VERMONT.

Buffum, John H., Wallingford.

VIRGINIA.

Cook, Henry W., Richmond.
West, Thos. P., Bedford City.

WASHINGTON.

Clark, Leslie W., Seattle.
McCornack, P. D., Spokane.
Carr, F. L., Montisano.
Durrent, Jas. A., Snohomish.
Howells, Walter J., Medical Lake.

WEST VIRGINIA.

Noome, A. J., Wheeling.
Hall, H. M., Wheeling.
Bigony, John F., Hinton.
Brown, C. M., Mt. Hope.
Dempsey, Wm. E., Cambria.
Gardner, M. E., Morgantown.
Howard, Edw. W., Fairmont.
Coplin, O. W., Zackville.

WISCONSIN.

Elmergreen, Ralph, Milwaukee.
Conklin, Geo. H., Superior.
Rene, J. A., Superior.
Armstrong, C. A., Boscobel.
Reed, Wm. W., Jefferson.
Wade, Frank Swan, New Richmond.
Thomson, Wm. J., Briggsville.
Todd, Sam'l Gordon, Neenah.
Westgate, Floyd J. E., Kiel.
Bayer, Elizabeth D., Appleton.
Dwight, Corydon G., Darlington.

The Public Service.

Army Changes.

Memorandum of changes of station and duties of medical officers, U. S. Army, week ending April 2, 1904:

Patton, I. W., asst.-surgeon, relieved from duty on transport *McClellan* and ordered to Fort Hamilton, N. Y.

Devereux, Thomas, asst.-surgeon, relieved from duty on transport *Sumner* when it shall go out of commission, and ordered to Manila, P. I., for duty.

Pipes, Henry F., Foster, Charles L., Loving, Robert C., Brown, Orville G., Whaley, Arthur M., Lamson, Theodore, Snyder, Craig R., Bingham, Ernest G., Heysinger, Jas. D., Smith, Lloyd L., and Huggins, Jno. B., asst.-surgeons, on completion of course of instructions at the Army Medical School, this city, will proceed to Manila for duty.

Kiersted, Henry S., asst.-surgeon, on completion of course of instructions at the Army Medical School, in this city, will proceed to Fort Myer, Va., for duty.

Howell, Park, asst.-surgeon, on completion of course of instructions at the Army Medical School, this city, will take station at Fort McPherson, Ga.

Harvey, Philip F., asst.-surgeon general, granted extension of thirty days to present leave of absence.

Stedman, Chester J., asst.-surgeon, granted fifteen days leave, to take effect on being relieved from duty at the Army Medical School, Washington, D. C.

Powell, Wm. A., asst.-surgeon, granted fourteen days' leave.

Stark, Alexander N., asst.-surgeon, assumed the duty of attending surgeon, Washington, D. C.

Shook, Jay R., asst.-surgeon, on the completion of course of instruction at the Army Medical School, Washington, will proceed to Fort Leavenworth, Kan., for duty to relieve First Lieutenant Ralph S. Porter, asst.-surgeon, U. S. Army.

Porter, Ralph S., asst.-surgeon, on being relieved from duty at Fort Leavenworth, Kan., by Asst.-Surgeon Shook, U. S. Army, will proceed to Fort Niobrara, Neb., for duty.

Miller, Reuben B., asst.-surgeon, on completion of course of instruction at Army Medical School, Washington, will proceed to Fort Screven, Ga. for duty to relieve First Lieutenant Harry L. Gilchrist, asst.-surgeon, U. S. Army.

Gilchrist, Harry L., asst.-surgeon, on being relieved from duty at Fort Screven, Ga., by Asst.-Surgeon Reuben B. Miller, U. S. Army, will proceed to U. S. Army General Hospital, Washington Barracks, Washington, D. C., for duty.

Juenemann, George F., asst.-surgeon, on the completion of the course of instruction at the Army Medical School, will proceed to Fort Ringgold, Texas, for duty.

Miller, Edgar A., asst.-surgeon, on the completion of the course of instruction at the Army Medical School, will proceed to Fort Clark, Texas, for duty.

Tefft, William H., asst.-surgeon, on the completion of the course of instruction at the Army Medical School, will proceed to Fort Snelling, Minn., for duty.

Skinner, George A., asst.-surgeon, on being relieved at Fort Snelling, Minn., will proceed to Fort Harrison, Mont., for duty.

Newgarden, George J., asst.-surgeon, on being relieved at Fort Harrison, Mont., will proceed to San Francisco, and report to commanding general, Department of California, for transportation to Manila, P. I.

The following named asst.-surgeons, on the completion of the course of instructions at the Army Medical School, will proceed to the posts designated after their respective names for duty:

Noble, Robert E., U. S. Army General Hospital, Washington Barracks, D. C.

Van Poole, Gideon McD., Fort Stevens, Ore., Department of the Columbia.

Mabee, James I., Fort Casey, Wash., Department of the Columbia.

Jones, Percy L., Fort Monroe, Va., Department of the East.

Palmer, Fred W., Jefferson Barracks, Mo., Department of the Missouri.

Bosley, John R., Fort Thomas, Ky., Department of the Lakes.

Stedman, Chester J., Columbus Barracks, Ohio, Department of the Lakes.

Siler, Joseph F., Fort Logan, Colo., Department of Colorado.

Brewer, Isaac W., contract surgeon, granted twenty days' leave of absence, with permission to apply for an extension of ten days.

Decker, George M., contract dental surgeon, granted leave of absence for one month, to take effect on his return to Fort Logan, Colo., from Fort Grant, Ariz.

Macy, Fred S., contract surgeon, granted fourteen days' leave of absence, to take effect about April 15.

Navy Changes.

Changes in the medical corps, U. S. Navy, for the week ending April 2, 1904:

Edgar, J. M., surgeon, detached from the *Wisconsin*, and ordered to the *Monadnock*.

Traynor, J. P., asst.-surgeon, detached from the *Frolic* and ordered to the *Albany*.

Oman, C. M., asst.-surgeon, detached from the *Monadnock* and ordered to the *Frolic*.

Marcour, R. O., asst.-surgeon, detached from the *Dixie* and ordered to duty with the Marine Battalion at Guantanamo, Cuba.

High, W. E. G., asst.-surgeon, detached from the *Constellation* and ordered to the Midway Islands for duty with the Marine detachment at that place, sailing from San Francisco, April 8, via the *Supply*.

Marine-Hospital Service.

Official list of the changes of station and duties of commissioned and non-commissioned officers of the Public Health and Marine-Hospital Service, for the seven days ended March 31, 1904:

Wasdin, Eugene, surgeon, granted leave of absence for one month from April 1, 1904, on account of sickness.

Rosenau, M. J., P. A. surgeon, detailed to represent the Service at meeting of Tuberculosis Committee, College of Physicians, Philadelphia, March 28.

Cumming, H. S., P. A. surgeon, granted leave of absence for ten days from April 5.

Lavinder, C. H., P. A. surgeon, granted leave of absence for two days from March 29. Granted three days' extension of leave of absence from March 31.

Grubbs, S. B., P. A. surgeon, granted ten days' extension of leave of absence from March 31.

Billings, W. C., P. A. surgeon, granted leave of absence for two months and three days from April 30, 1904, with permission to go beyond the sea.

Richardson, T. F., asst-surgeon, detailed to attend conference of state health officer and county health officers of Texas March 31.

Amesse, J. W., asst.-surgeon, granted leave of absence for two months and fifteen days from May 1.

Boggess, J. S., asst.-surgeon, granted leave of absence for two days from March 30.

BOARDS CONVENED.

Board to meet at Washington, D. C., to consider the construction or purchase of boarding steamers for the quarantine stations at San Francisco and Port Townsend, Wash.; also to consider type of launch for boarding or inspection of vessels at the Key West Quarantine and at Havana, Cuba; also to consider the feasibility of repairing the hull of the launch *Spray* at the Delaware Breakwater Quarantine, and placing new motive power therein. Detail for the board: Asst.-Surgeon-General A. H. Glennan, chairman; Asst.-Surgeon-General W. J. Pettus; Asst.-Surgeon-General H. D. Geddings, recorder.

Board convened at Baltimore, April 4, for the physical examination of officers of the Revenue-Cutter Service for promotion. Detail for the board: Surgeon H. R. Carter, chairman; Asst.-Surgeon C. W. Wille, recorder.

Board convened at San Francisco, April 4, for the physical examination of an officer of the Revenue-Cutter Service. Detail for the board: P. A. Surgeon W. G. Stimpson, chairman; Asst.-Surgeon Carl Ramus, recorder.

Health Reports.

The following cases of smallpox, yellow fever, cholera and plague have been reported to the Surgeon General, Public Health and Marine-Hospital Service, during the week ended April 1, 1904:

SMALLPOX—UNITED STATES.

Colorado: Denver, Jan. 30-Feb. 27, 22 cases, 1 death.

Florida: Jacksonville, March 19-26, 1 case.

Illinois: March 19-26, Chicago, 10 cases; Galesburg, 3 cases.

Kentucky: Burlington, to March 28, 16 cases; Covington, March 19-26, 3 cases; Springfield, March 28, 6 cases.

Louisiana: New Orleans, March 19-26, 2 cases, imported.

Maine: Manawaska region, March 19-26, 2 cases.

Maryland: Baltimore, March 19-26, 3 cases.

Massachusetts: Lowell, March 19-26, 1 death.

Michigan: March 19-26, Detroit, 2 cases; Grand Rapids, 2 cases; March 12-19, at 82 localities, present.

Missouri: St. Louis, March 19-26, 4 cases.

New Jersey: March 19-26, Camden, 2 cases, 1 death; Trenton, 1 case; Jersey City, March 20-27, 1 case, porter on train.

New York: New York, March 19-26, 1 case.

Ohio: Cincinnati, March 11-18, 1 case, 1 death; Cleveland, March 18-25, 5 cases; March 19-26, Dayton, 8 cases, 1 death; Warren, 1 case; Lorain, March 20-27, 2 cases, probably imported.

Pennsylvania: March 19-26, Johnstown, 2 cases; Philadelphia, 35 cases, 8 deaths; Pittsburg, 8 cases, 1 imported.

South Carolina: Charleston, March 19-26, 4 cases, 1 death; Greenville, March 12-19, 4 cases.

Tennessee: March 19-26, Memphis, 30 cases, 1 death; Nashville, 2 cases.

Wisconsin: Milwaukee, March 19-26, 3 cases.

SMALLPOX—FOREIGN.

Belgium: Antwerp, March 5-12, 4 cases, 3 deaths.

Colombia: Barranquilla, Feb. 20-March 13, 1 death.

France: Lyons, Feb. 27-March 5, 1 death; Paris, March 5-12, 32 cases, 3 deaths.

Great Britain: March 12-19, Birmingham, 1 case; Cardiff, 1 case; Glasgow, March 11-18, 21 cases, 2 deaths; March 5-12, Edinburgh, 6 cases, 1 death; Hull, 7 cases; Leith, 1 case; London, 21 cases; Manchester, 3 cases; Newcastle-on-Tyne, 3 cases; Nottingham, 18 cases, 3 deaths; South Shields, 3 cases.

India: Bombay, Feb. 23-March 1, 14 deaths; Karachi, Feb. 21-28, 1 case, 1 death.

Java: Batavia, Feb. 13-20, 20 cases, 8 deaths.

Mexico: City of Mexico, March 6-13, 16 cases, 7 deaths.

Netherlands: Amsterdam, March 12-19, 3 cases, 3 deaths.

Russia: Feb. 27-March 5, Moscow, 8 cases, 3 deaths; St. Petersburg, 12 cases, 1 death; Odessa, March 5-12, 1 case.

Spain: Santander, March 7-14, 4 cases, 1 death.

Turkey: Alexandretta, March 5-12, 1 case; Constantinople, March 6-13, 8 cases; Smyrna, Feb. 21-28, 1 case.

YELLOW FEVER.

Ecuador: Guayaquil, Feb. 27-March 5, 3 deaths.

Mexico: Vera Cruz, March 12-19, 1 case.

CHOLERA.

India: Calcutta, Feb. 13-20, 34 deaths; Karachi, Feb. 21-28, 2 cases, 1 death; Madras, Feb. 13-20, 3 cases, 1 death.

Turkey in Asia: Feb. 22, Bassra, 7 cases, 7 deaths; Kermit Ali, 4 cases, 2 deaths.

PLAGUE—INSULAR.

Philippine Islands: Manila, Feb. 6-13, 1 case, 1 death.

PLAGUE—FOREIGN.

China: Hongkong, Feb. 6-13, 2 deaths.

India: Bombay, Feb. 23-March 1, 832 deaths; Calcutta, Feb. 13-20, 75 deaths; Karachi, Feb. 21-28, 113 cases, 96 deaths; Rangoon, Feb. 19, 1 case.

Mauritius: Feb. 18-25, 3 cases, 2 deaths.

Peru: Lima, March 31, 28 cases reported.

Medical Organization.

Medical Society of the Missouri Valley.—At the seventeenth annual meeting of this society held in Lincoln, Neb., March 24, the following preamble and resolutions were unanimously adopted:

WHEREAS, At the present time there is a most praiseworthy effort being made to federate, unify and bring into one grand, compact organization the entire medical profession of America; and

WHEREAS, The promoters of this great work in the various state and county societies, and in the American Medical Association, have met with unqualified success, as evidenced by the fact that already there are enrolled over 200 component societies; therefore, be it

Resolved, That the members of the Medical Society of the Missouri Valley are in sympathy with this progressive movement, and heartily endorse the plan of organization. Be it further

Resolved, That this society desires to become a district or auxiliary society in affiliation with the American Medical Association.

Florida.

Dr. J. Harris Pierpont, councilor of the First District, reports the organization of the Walton and Washington county medical societies. This completes his district, except one county, which has too few physicians to form a society.

WALTON COUNTY MEDICAL SOCIETY.—This society was organized, March 18, with the following officers: Dr. George P. Henry, president; Dr. C. A. Landrum, vice-president, and Dr. W. H. Stinson, secretary-treasurer, all of De Funiak Springs.

WASHINGTON COUNTY MEDICAL SOCIETY.—This society was organized, March 18, at Chipley, with the following officers: Dr. F. C. Wilson, president; Dr. J. H. Farrier, vice-president, and Dr. J. S. McGeachy, secretary-treasurer, all of Chipley.

Missouri.

HANNIBAL MEDICAL SOCIETY.—This society has been reorganized on the standard plan with the following officers: Dr. John S. Howell, president; Dr. Florence Janet Reid, secretary, and Dr. John J. Bourn, treasurer.

Montana.

Montana, North District, Medical Society.—A meeting was held at Great Falls, March 24, to reorganize this society, which has been inactive for several years. Dr. John A. Sweat was made temporary chairman, and Dr. Charles T. Sweeney temporary secretary, both of Great Falls. Dr. Ernest Crutcher, Great Falls, representing the Montana State Medical Association, presented the constitution and by-laws of that body, and a committee on by-laws was appointed, consisting of Drs. Albert F. Longeway, Earle Strain, and Charles T. Sweeney, all of Great Falls.

Texas.

Colorado County Medical Association.—The organization of this association was noted in The Journal of March 26. Dr. Robert H. Harrison, Columbus, was elected president; Dr. Charles G. Cook, Weimer, vice-president; Dr. Charles M. Blair, Columbus, secretary; Dr. Robert H. Harrison, Jr., Columbus, delegate to the state association, and Drs. Harry R. Bowers, Columbus, Charles A. Williamson, Columbus, and Samuel B. MacLeary, Weimar, were elected censors.

Fifteenth District Medical Society.—Pursuant to a call issued by Dr. Holman Taylor, Marshall, councilor of the Fifteenth (Northeastern) District, delegates from the seventeen counties which make up the district met at Marshall, March 21, and passed resolutions proposing that the Northeast Texas Medical Association be constituted the official medical society of the Fifteenth District on its compliance with the standard by-laws. Dr. William G. Jameson, Palestine, was elected chairman, and Dr. E. H. Hamilton, Longview, secretary of the temporary organization.

Therapeutics.

[Our readers are invited to send favorite prescriptions or outlines of treatment, such as have been tried and found useful, for publication in these columns. The writer's name must be attached, but it will be published or omitted as he may prefer. It is the aim of this department to aid the general practitioner by giving practical prescriptions and, in brief, methods of treatment for the diseases seen especially in every-day practice. Proper inquiries concerning general formulae and outlines of treatment are answered in these columns without allusion to inquirer.]

Chronic Dyspepsia in Children.

In the treatment of chronic dyspepsia in children, which term includes all the digestive disorders of childhood which are not acute, and not merely symptomatic, W. R. Jordan, in *Merck's Archives*, states that drug treatment is necessary in all cases. During an actual catarrhal attack, or where the subjective symptoms are prominent, the author recommends the following to be given three times a day before meals:

℞.	Sodii bicarb.	gr. vi	40
	Tinct. nucis vom.		
	Spts. chloroformi, āā	gtt. ii	12
	Aq. menth. pip. q. s. ad	ʒii	8

M. Sig.: *At one dose, to be repeated before each meal.*

If constipation is present it must be corrected. For this purpose he recommends cascara combined as follows:

℞.	Ext. cascaræ sagradæ flu.	m. x	65
	Tinct. nucis vom.	m. ii	12
	Tinct. belladonnæ	m. v	30
	Glycerini	m. x	65
	Aq. menth. pip. q. s. ad	ʒii	8

M. Ft. haustus. Sig.: To be taken at one dose, at bedtime.

In some cases the constipation may be relieved by *the administration* of rhubarb or magnesia before meals.

When the constipation has been corrected the following should be prescribed to increase the strength and appetite of the patient:

℞.	Tinct. ferri chloridi	gtt. lxxv	5
	Liq. strych. (1 per cent.)	gtt. xv	1
	Aq. chloroformi q. s. ad	℥iv	120

M. Sig.: Two teaspoonfuls after each meal in water.

Where headaches of more or less distinctly periodic type complicate the condition, the author recommends antipyrin in 5 grain (.30) doses two or three times daily. The diet must be regulated by the prohibition of sweets, pastry, pickles and tea *especially during the attack*. In severe cases the diet may be restricted to beef tea and mutton broth, with dry toast, gradually introducing milk and meat into the diet. Later and in milder cases the following rules should be observed: Meals at regular intervals, not too long; nothing between meals; no tea or coffee, no pickles, no sauces or highly seasoned food. Potatoes should be eliminated from the diet until convalescence. The abdominal organs and thighs should be well protected by the clothing, while not too thick and heavy over the chest. The parents should then be instructed to take the child out of doors into the open air to a generous extent. Children under *eight should* be kept away from school, and no child should be allowed to go to school who is described as eating "no breakfast."

Eczema.

Gaucher, in *Jour. de Pract.*, in speaking of the treatment of eczema, states that in eczema of the scalp the crusts should be removed by applying compresses dipped in hot water and covered with rubber tissue. In *women the crusts* are best removed by the aid of oily and emollient applications, and by *local* applications of steam. After removing the crusts the author recommends the application of the following to the scalp:

℞.	Olei cadini	ʒv	20
	Olei amygdalæ exp.	℥i	30

M. Sig.: Apply locally night and morning.

The same treatment may be pursued in eczema of the beard *and eyebrows. In these latter forms* the following ointment is of service:

℞.	*Zinci oxidi*	ʒiss	6
	Hydrarg. chloridi mitis	gr. xlv	3
	Adipis	℥iiss	75

M. Sig.: Apply locally.

In sycosis of the beard the following is recommended:

℞.	Hydrarg. subsulph. flavi	gr. xv-xlv	1.-3
	Adipis	℥i	30

M. Sig.: Apply locally.

In eczema of the nostrils, after syringing the nose with borated water, apply pieces of cotton saturated with the following ointment:

R.	Acidi borici		
	Acidi tannici		
	Hydrarg. chloridi mitis		
	Zinci oxidi, āā	gr. x	65
	Liq. petrolati	gr. c	6|65

M. Ft. unguentum. Sig.: Apply on pledgets of cotton; or:

℞.	Acidi salicylici	gr. i-v	06-.30
	Liq. petrolati	℥i	30

M. Sig.: Apply locally to the affected areas on pledgets of cotton.

In the treatment of eczema of the lips use an application of an ointment of boric acid or of zinc oxid 10 per cent. or of salicylic acid ointment 1 per cent. strength. At night the lips should be protected by a rubber band. When eczema attacks the eyelids compresses of hot water and linden flowers or boric acid should be applied locally, and the following solution dropped into the eye:

℞.	Aluminis (burnt)	gr. i	06
	Aquæ destil.	ʒii	8

M. Sig.: Drop one drop into the inner angle of the eye night and morning.

When the eyelashes are involved they should be epilated and the yellow oxid of mercury applied locally or cauterization with copper sulphate. When the auditory canal is attacked, an infusion of althea should be employed together with applications of the oil of cade.

In the acute stage of eczema of the anus moist compresses must be applied locally and later on the application of the oil of cade; or an ointment of calomel, or of the extract of krameria. When fissure exists cauterization of the fissure with copper sulphates should be resorted to. To relieve the itching a 5 per cent. chloral solution or a 10 per cent. solution of carbolic acid should be applied locally. To relieve the subjective symptoms and to effect a cure when the scrotum is involved moist applications should be applied, together with ointments of zinc oxid or bismuth subgallate. If the eczema is dry, apply dilute oil of cade, and, if moist, a powder consisting of 2 parts per 100 of salicylic acid.

When the glans is involved local baths are recommended three times daily with a solution of resorcin, 1-200, and in the intervals *the following powder* should be applied:

℞.	Mag. carb.	℥i	30
	Aristol	gr. xxx	2

M. Sig.: Apply locally after the bath.

And when involving the vulva in the female, compresses of a saturated solution of boric acid or of chloral, 1-200, should be applied, followed by *ointments* of zinc oxid or calomel or bismuth subgallate.

To relieve eczema occurring on the lower extremities, rest in bed is indicated, wet compresses and the following ointment:

℞.	Olei cadini	ʒiiss	10
	Zinci oxidi	℥ss	15
	Liq. petrolati	ʒv	20

M. Ft. unguentum. Sig.: Apply locally.

And when eczema attacks the palms and soles, the parts should be washed with a solution of the tincture of green soap night and morning. Later, oil of cade or a 2 per cent. ointment of salicylic acid may be applied. When the nails are involved an application of pure oil of cade or a 5 per cent. solution of salicylic ointment serves the purpose.

Brodier, in *Med. Age*, recommends internal treatment in eczema occurring in gouty and rheumatic cases. His list of preparations includes quinin, colchicum, digitalis, ergot, and belladonna.

Brocq, in the same periodical, recommends the following combination:

℞.	Quin. hydrobrom.	gr. i	06
	Ext. colchici	gr. 1/6	01
	Pulv. digitalis fol.	gr. 1/3	02

M. Sig.: Two or three such pills daily; or:

℞.	Quin. hydrobrom.	gr. i	06
	Ext. belladonnæ	gr. 1/60	001
	Ext. gentianæ	gr. i	06

M. Sig.: One such pill four to eight times daily.

Arsenic and sulphur must be avoided, according to the author, in all acute eczemas. A milk diet should be advised. The local treatment in the beginning should consist of starch cataplasms applied on muslin and removed every three or four hours. Chamomile lotion is also of service. In old arthritic cases powders are better than cataplasms. The best are starch and lycopodium, which may be mixed with zinc oxid, bismuth and camphor. Ointments such as the glycerol of starch, unguentum aquæ rosæ, or a mixture of zinc oxid, starch, and lanolin are useful. Picric acid 1-200 solution is good in acute eczema, not accompanied by much inflammation, to relieve the itching.

Medicolegal.

Reaching Climacteric Before Recovery from Injuries.—At the time of the trial of the personal injury case of Keefe vs. the Norfolk Suburban Street Railway Co., the plaintiff was 39 years and 11 months old, and contended that, if she should reach her climacteric before she had fully recovered, her suffering might be prolonged as one of the results of the accident. The company, on the other hand, contended that on the evidence the possibility that she would reach her climacteric before her full recovery from the accident was so remote that it should not be considered by the jury as an element of damage, and at the close of the evidence asked the court so to rule, which it declined to do, submitting this question to the jury. The Supreme Judicial Court of Massachusetts overrules an exception to this, holding that the whole question was one of fact for the jury, as, in view of all the evidence, it could not be said as a matter of law that the likelihood referred to was so remote as to call for the instruction requested by the company.

Letting Jury Know Physicians Were Appointed by Court.—Two of the errors complained of in the personal injury case of Stroh vs. the South Covington & Cincinnati Street Railway Co., consisted in the fact that the trial court permitted it to be known by the jury that the two physicians who testified in the case as to the extent of the plaintiff's injuries had been appointed by the court, and the misconduct of the attorney for the company in stating to the jury in his argument that these physicians had been appointed by the court. The Court of Appeals of Kentucky does not see how this could have prejudiced the plaintiff's case, who appealed on the ground that the damages awarded her were inadequate. It says that the doctors had been appointed by the court, under that large discretion which it possessed. The question was not material how they came to know the facts of which they deposed, but rather the truth of their evidence after they were on the stand. The plaintiff could not have been prejudiced by the knowledge on the part of the jury that these two witnesses came from an entirely impartial appointment. Nor does the Court of Appeals think that the plaintiff was prejudiced by the refusal of the trial court to permit her counsel to further cross-examine an expert witness after he had been thoroughly examined, and had told all he knew on the subject in hand. It says that any further cross-examination of him would be an unnecessary prolongation of the trial, which the court, in its wisdom, had the right to curtail. [See editorial this week.]

Province of Expert Witness.—The Supreme Court of Georgia says, in Travelers' Insurance Co. vs. Thornton, that under a prior decision it was left for the jury to say whether the insured's injury was caused by a fall and aggravated by hernia, or whether the hernia was a contributing cause to the injury. A physician could give an opinion on hypothetical facts on what he had heard other witnesses testify in the case, or on facts discovered by his own investigation. He could state what, in his opinion, would have been the effect of a blow to the insured without a hernia, and what the effect of the blow with the hernia. An expert can testify as to what was the cause of death, or of an injury, or as to the effect of disease, or as to the effect of a blow on one sound or on one unsound. He can give his opinion on physical facts or as to the medical facts, but he can not determine the legal classification of such facts. It was not proper for him to use the language of the decision and testify that the hernia was a "contributing cause." That was a mixed question of law and fact, to be determined in the light of all the evidence; and it would have been as improper to permit such testimony as it would have been in an ordinary case to allow a witness to say that a particular act amounted to negligence, or to contributory negligence, or that another fact was the proximate or remote cause. The expert may aid the jury, but he can not act as a member of the jury; nor, while on the stand, can he transcend the functions of a witness, and under the guise of giving testimony state a legal conclusion.

Examining Boards and Redress of Rejected Applicants—Evidence.—The Supreme Court of North Carolina says, in the case of Ewbank vs. Turner and others, that the power of the legislature to require examination and certificate as to the competency of persons desiring to practice professions or skilled trades is upheld, after a review of the authorities, in State vs. Call, 121 N. C. 643. That decision was reaffirmed in State vs. McKnight, 131 N. C. 717, the court calling attention to the fact that the state exercises this police power for the protection of the public from impostors and incompetents, and not to the end of conferring exclusive privileges on any particular body of men, for to do the latter is prohibited by the state constitution. It is a power to be exercised for the public good, and the legislature is to judge of the method of appointing the examiners, and can prescribe the nature of the examination, unless it appear plainly that the power to regulate is used in reality in violation of the guaranties in the constitution, and for the purpose of conferring exclusive privileges, and not solely for the protection of the public. State vs. Biggs (at this term), 46 S. E. Rep. 401; page 675 of The Journal, March

5, 1904. The code, the court goes on to say, provides for a board of examiners, to consist of six members of the North Carolina Dental Society, to be elected by said society. The presumption is that this honorable body will elect six of its ablest and most prominent members for the important duty of keeping up the standard of their profession by a just, reasonable and impartial examination of applicants. Should this important duty be neglected and incompetent or unworthy members be chosen, the remedy is by legislative repeal, or change of the method of selecting the board. Section 3151 provides that "said board shall grant a certificate of proficiency in the knowledge and practice of dentistry to all applicants who shall undergo a satisfactory examination, and who shall receive a majority of votes of said board on such proficiency." The lawmaking power having intrusted such examination to the board thus constituted, and required that the examination shall be satisfactory to them, and such requirements being reasonable and in violation of no constitutional provision, the courts can not intervene and direct the board to issue a certificate to one who the majority of the board have held has not passed a satisfactory examination, because, on the examination of experts, the court or jury might think the examination of the plaintiff ought to have been satisfactory to the board. That is a matter resting in the consciences and judgment of the board, under the provisions of the law, and the courts can not by a mandamus compel them to certify contrary to what they have declared to be the truth. Had the board refused to examine the applicant on his compliance with the regulations, the court could by mandamus compel them to examine him; but it can not compel them to issue him a certificate, when the preliminary qualification required by law, that the applicant shall be found proficient and competent by the examining board, is lacking. One remedy, if there should ever happen such abuse of trust as that the board "wrongfully, unlawfully, unjustly, arbitrarily, and without just cause or reason" declined to issue a license, would be, as already stated, by the legislature repealing the act, or providing a different method of selecting the board, or regulating the method or course of examination, or prescribing a review of the finding of the board by some other body, if the General Assembly should think proper. Another remedy would be to follow the precedent set by applicants for license to practice law, who, when rejected, study their prescribed course over again, and stand for examination at the next regular day. This is, perhaps, the most sensible course, for no man ever knows his profession too well. Another remedy still: If the applicant avers his rejection was caused by improper motives, his remedy is an action for damages against the individuals composing the board; alleging bad faith or arbitrary disregard of their duties, or improper animus against the plaintiff, or other malversation in their discharge of duty. In such action it might be difficult to prove the charges, unless by declarations made by the defendants themselves, for certainly the examination paper of the plaintiff himself would not be competent, in the first place, since, though experts might testify to its sufficiency in their judgment, that does not negative the good faith of the board, whose judgment, if exercised in good faith, is a protection to them. Malicious, illegal, or arbitrary action must be shown by direct evidence, and not by inference to be drawn by the jury from the fact that the opinion of witnesses introduced as experts may differ from the opinion of a legal board of examiners as to the sufficiency of the examination. It is only when there shall be other evidence first introduced, laying a sufficient ground for a charge of bad faith and misconduct, that the examination paper of the plaintiff could possibly be competent, and then only in corroboration of the evidence first introduced. And in no aspect could the papers of other applicants at the same time and place be put in evidence, for, even if they had been admitted to practice on insufficient answers, the plaintiff was not hurt thereby, and the introduction of irrelevant matter would only confuse the issue, which would be whether the plaintiff was refused a certificate, though he was shown to be qualified by his answers, by the arbitrariness, improper animus, and misconduct of the examining board.

Current Medical Literature.

AMERICAN.

Titles marked with an asterisk (*) are abstracted below

American Medicine, Philadelphia.

March 26.

1 *Abdominal Pain. J. H. Musser.
2 *Some Practical Points in Abdominal Surgery, with Special Reference to a Simple Technic for Appendicectomy and Intestinal Anastomosis. Frederick H. Wiggin.
3 *Torticollis and Spinal Curvature Due to Eyestrain. Georg M. Gould.
4 Fatal Pulmonary Embolism Following Ascending Phlegmasia Alba Dolens. John G. Sheldon.
5 Raynaud's Disease. David G. Peyton.
6 Bradycardia, with Report of an Unusual Case. J. William Watson.

1. **Abdominal Pain.**—Musser remarks that pain is a symptom which more than all others leads to the recognition and localization of abdominal disease, and it is fortunate when a patient is intelligent enough to describe it accurately. He first notices the associated expression of pain and spasm of the muscles, which is one of the most valuable indications. Its absence is of much significance under certain circumstances. It is wanting, of course, where there is little or no muscle, as in case of atrophied abdominal walls. In a case of perforating gastric ulcer with oncoming peritonitis operated on by Keen within six hours of perforation, no spasm or resistance was detected. Similar cases have occurred in cholecystitis where mural atrophy existed. The muscle spasm disappears with the onset of toxemia, and hence a rapidly lessening resistance is a matter of grave significance. Tenderness of the cutaneous surface, hyperalgesia, is also of importance; if it exists and then disappears, as may also spasm and pain, the change is of ill omen unless all the symptoms subside. The absence or the disappearance of hyperalgesia means gangrene or perhaps perforation. Passing over the subject of lead poisoning, Musser speaks of abdominal pain due to uremia, and reports a case showing its simulation of perforating gastric ulcer. He mentions hysteria and neuroses for the purpose of disclaiming against the accepted ideas of the frequency of abdominal pain of such origin. A number of conditions of abdominal pain not due to disease below the diaphragm are enumerated, such as the crises of locomotor ataxia and other organic spinal cord diseases, spondylitis rhizomelique, cancer and caries of the vertebra, aneurism of the thoracic aorta, diaphragmatic pleurisy and rheumatism of the diaphragm. Pneumonia may often produce abdominal pain, and he has been repeatedly called in to decide as to the necessity of abdominal operation when pneumonia existed. He also refers to cardiac affections, the epigastric pain of acute pericarditis and abdominal pain due to gastric affections. Epigastric hernia may give rise to symptoms simulating gastric affections or gall-bladder and gall-duct diseases. Hepatic and renal pain are also mentioned, and pancreatic pain. He believes that mild cases of pancreatitis are much more frequent than generally supposed. The disappearance of pain must not lead to any false security and we must look for the slightest suggestion of toxemia. A leucocyte count is often of great value. A low white count without improvement in symptoms and especially of the general toxemia symptoms, is of serious import. The absence of pain may be of value in the diagnosis, as, for example, in a case of intestinal paresis here reported.

2. **Abdominal Surgery.**—Wiggin's article is an elaborate one, with many illustrations, describing the method of suturing the appendix by the passing of three sutures across the site of the appendix before it is excised, subsequently tying them so that they are out of sight in the fold and supplementing them with four catgut Lembert sutures to complete the operation. He also describes his method of intestinal anastomosis, which consists in passing the sutures through the whole thickness of the bowel and tying them so that they are out of sight with the closure of the wound, making the last suture a Lembert. The sutures and knots are all left inside the gut except the last one. The technic is described in detail, as is also the after-treatment.

3. **Eye-Strain.**—Gould reports a case of torticollis and spinal curvature due to eye-strain and discusses other cases reported in the literature. The practical points he makes are that habitual abnormal position of the head, due to errors of refraction, is frequently the cause of spinal curvature. Heterophoria, which has been considered the cause, is usually secondary to refractive error, the proper correction of which, at an early age, cures the heterophoria, torticollis and spinal curvature.

New York Medical Journal.

March 26.

7 *Best Time for Repairs of Laceration of the Cervix. Robert L. Dickinson.
8 Case of Cerebral Diplegia (so-called "Spastic Spinal Paraplegia") with Pseudo-hypertrophy. P. W. Nathan.
9 *Effect of Violet Rays on Nebulæ. Alfred W. Herzog.
10 *Primary Trachelorrhaphy; a Restatement. George Donahue.
11 Laparotomy for Gunshot Wounds of Abdominal Viscera, with Report of Five Successful Cases. Robert W. Johnson.
12 *Use of Injections of Sodium Cinnamate in Locomotor Ataxia. Paul Bartholow.
13 Skiagraphic Errors: Their Causes, Dangers and Prevention. (To be continued.) Lewis G. Cole.
14 Normal Saline Solution. A Review of Some of Its Clinical Uses. E. Payne Palmer.
15 *Some Clinical Features of Diseases of Gall Bladder and Bile Ducts Due to Gallstones, and the Indications for Their Surgical Treatment. Charles A. Elsberg.
16 Influence of Typhoid Fever on the Nervous System. C. C. Hersman.

7. **Cervical Lacerations.**—Dickinson points out the amount of trauma which the cervix receives during labor and the impossibility of proper repair of the injuries immediately after, at least in many cases. He would operate only between the third and fifteenth day, after the parts have become more normal and recognizable, unless the cervical laceration seems to be the cause of postpartum hemorrhage. His practice is to sew up all cervical tears in the first week in conjunction with the perineal operation when the pelvic floor injury is of such a character that a few days' delay is desirable, and to restore severe injuries to the cervix from the third to the tenth day after the delivery.

9. **Effects of Violet Rays on Nebulae.**—Herzog calls attention to the phenomena occurring when a nebula, as produced by one of the numerous nebulizers on the market, is passed around a vacuum electrode in action. As the current passes around the electrode it will be observed that the cloud of vapor develops with much greater rapidity and greater volume and that instead of falling to the floor or filling the middle portion of the room, it rises to the ceiling and floats around the room. The violet rays thus subdivide the vapor in such a manner as to cause it to be of much greater fineness. He thinks this fact may be of some importance since the finer the vapor the more readily are the medicaments which it carries absorbed by the respiratory organs.

10. **Primary Trachelorrhaphy.**—Donahue refers to a former article in which he advocated repair of the lacerated cervix within twenty-four to thirty-six hours after labor, and supports his former position by new arguments. He thinks the reaction, the disturbances due to the lacerated cervix, the possibility of the introduction of pathogenic germs, etc., call for early repair.

12. **Sodium Cinnamate in Tabes.**—Basing himself on the affinity of sodium cinnamate for nucleinic acid and the leucocytes, and its power of setting the current of the latter in the direction of any local exacerbation of the disease, Bartholow has employed sodium cinnamate injections in cases of tabes, so far with gratifying results. He has employed sodium cinnamate solution, 1 in 10 in sterile water, beginning with 20 minims and gradually raising the amount to 60 minims, hypodermically injected in the interscapular space. There was a decided gain in body weight and strength; some of the nervous phenomena diminished in severity and the co-ordination was improved. He thinks sodium cinnamate benefits the organism chiefly by promoting the appetite and digestion and consequently nutrition, but also by setting up chemical changes in the outlying regions of the degeneration in the cells and connective tissue of the nerve substance.

15. **Gall-Bladder Disease.**—Elsberg sums up the indications for operation as follows: It is contraindicated with mild symptoms, especially if the diagnosis is in doubt; with recurrent mild attacks with long intervals of health; in acute obstruction of the common bile duct, and in any disease which would contraindicate a surgical operation of any kind unless under vital indications. Operative treatment is indicated in acute inflammatory diseases of the gall bladder with signs of severe infection or peritoneal invasion. Also in cases with very frequent mild attacks, which incapacitate the patient from work, which are accompanied by much loss of flesh and strength, or in which the patient is in danger of acquiring the morphin habit. Also in case of a persistent biliary fistula, and in the rare cases in which the symptoms are due to adhesions of the normal gall bladder to neighboring organs. He thinks that in the future medical men will agree on more early and radical treatment and cholecystectomy will be more frequently performed.

Medical News, New York.

March 26.

17 *Pneumatic Tourniquets: With Especial Reference to Their Use in Craniotomies. Harvey Cushing.
18 *Case of Strangulated Inguinal Hernia; Death from Fecal Drowning During Etherization. Edward H. Goodman.
19 *History of Saliva, Its Physiology, Chemistry and Pathology. Harold M. Hays.
20 Surgery of the Gall Bladder and Ducts. John F. Erdmann.
21 *Regulation of the Duration of Exposure and the Distance from the Tube in X-ray Therapy. Ennion G. Williams.
22 *Sea Bathing in Some Forms of Skin Diseases. R. Abrahams.
23 *Pericarditis; with the Report of Cases. George P. Paul.
24 *Indicators in Gastric Analysis, with Special Reference to Tropeolin 00. A. L. Benedict.
25 *Physiologic and Clinical Aspects of Hydrotherapy with Its Special Reference to the Treatment of Psychoses. R. D. Baker.

17. **Pneumatic Tourniquets.**—The disadvantages of the ordinary tourniquet, the possibility of producing nerve-pressure paralysis, its painfulness and its interference with the best technic of the operation, are enumerated by Cushing, who then describes the pneumatic tourniquet. It was undoubtedly suggested by the use of the distensible armlet of the Riva-Rocci blood-pressure apparatus. A similar armlet, though broader and of less distensible rubber and capable of being boiled, was constructed. By connecting it with a bicycle pump one or two quick strokes of the piston is sufficient to fill it. He has used such an arrangement many times for cocain operations on the extremities, and with the greatest satisfaction. It can be adjusted and not inflated until the moment of beginning the operation. By palpating a peripheral artery one can easily tell when a sufficient degree of inflation has been reached. In operating in minor cases without assistants he has used a small bicycle foot pump. A larger and stronger form of cylinder than those which he has employed might be used for major operations on a muscular leg or thigh. He also mentions the therapeutic use of such apparatus for increasing venous congestion of the parts and improving the nutrition in certain chronic processes such as pseudarthroses, joint tuberculosis, etc. The especial application of the pneumatic tourniquet, however, to which he devotes most of his paper, is in cases in which the skull is opened for exploratory purposes, for which a wide osteoplastic flap is required. He has used a tourniquet of this pattern in 18 of his craniotomies during the past year. The method of opening the skull and making the osteoplastic flap is described in detail, with illustrations. The application of the tourniquet is also illustrated. He applies it over a large square of gauze. In order to prevent any possible rolling of the tourniquet after inflation in cases where the shape of the head is poorly adapted to secure it, the edge of the gauze hood may be drawn up over it, fore and aft, and pinned, or else a longitudinal tape may be used for the same purpose, as shown in one of his illustrations. The tourniquet is sufficiently narrow to lie well below the inferior areas of the motor zone. It is then inflated and a shovel-shaped incision of whatever form desired made through the gauze hood and scalp to the underlying bone. There may be a momentary bleeding as the imprisoned vessels of the scalp empty themselves, but it is only exceptionally necessary to clamp any bleeding points, and then only on the concave side of the incision where some of the veins may have diploetic communication. The convex side, which is the more important, remains dry. He thinks the use

of this inflatable tourniquet is not the least factor in simplifying the procedure of craniotomy, and the belief that such an apparatus has not been heretofore used is the ground for publishing this communication.

18. *Fecal Drowning.*—Goodman reports a case similar to those reported lately by Andrews. He explains them by the fact of ether destroying the sensibility of the throat. He considers the suggestion of Andrews as to the use of local anesthesia in intestinal obstruction a good one. His patient was apparently fully conscious at the time of the accident, though undoubtedly the throat was benumbed.

19. **Saliva.**—Hays' article reviews the physiologic chemistry and pathology of saliva, and concludes that there are many interesting points, some of which have only been worked out "in embryo." He thinks new methods of diagnosis are possible, and he is at present working on tuberculous saliva to determine some points. Another indication of just as profound value is in trying to detect urea in saliva in cases of eclampsia. Other possibilities will probably suggest themselves. We may find in the future that the examination of the saliva will play an important part in the diagnostic arsenal.

21. *X-Ray Therapy.*—Williams publishes a table to show the relative effect of different distances on the *x*-rays, based on the rule that applies to all forms of radiant energy, viz., that the intensity varies inversely as the square of the distance.

Distance.	Relative Intensity.			Safety limits.
2	1	1,000	25.00	2.5
4	1/4	.250	6.25	10.0
6	1/9	.111	2.77	22.5
8	1/16	.062	1.56	40.0
10	1/25	.040	1.00	62.5
12	1/36	.027	.69	90.0
14	1/49	.020	.51	122.5
16	1/64	.015	.39	160.0
18	1/81	.012	.30	202.5
20	1/100	.010	.25	250.0

In the first column are the distances at two inch intervals. In the second are the relative intensities expressed in fractions. In the third are the same expressed in decimals. In the fourth are the relative intensities expressed in decimals taking the intensity at ten inches as unity. This column is useful, since ten inches is the average distance for an exposure; when one wishes to estimate the total amount of treatment given he can by means of this column reduce the exposures which may have been given at various distances to their equivalent at ten inches and then add the number of minutes. In the fifth column are the safety limits or the duration of time which it is safe to expose a patient without danger of a dermatitis. These figures are the result of an experience of nearly two thousand exposures personally given and by experiments in bringing about a redness of the skin by a continuous exposure. The figures are about one-half of those required to produce a moderate degree of redness of the skin of the forearm with a tube of one ampère and fifteen volts with an equivalent spark-gap in the secondary circuit of five inches.

He found the column of safety limits a valuable guide in radiographic work. The knowledge that a dermatitis will be produced by approximately twice the duration of these exposures under conditions that he can regulate has been of great value in directing the treatment. Its application to deep growths requires especial attention as to time and distance. The further the part is from the tube the less is the difference between the effect on the skin and the part beneath. The exposure, therefore, should be more distant and the length of duration directly as the square of the distance. By referring to the table one can determine the duration of the exposure. His rule is not to expose in ten days more than the number of minutes required to produce a dermatitis. As this point is approached the exposures are shorter and at longer intervals in order to watch the developments. As soon as the redness is reached and its degree determined, the treatment can be continued and directed according to the indications. He thinks this method has a tendency to more rational technic based on physical laws.

22. See abstract in The Journal, xli, p. 1158.

23. **Pericarditis.**—The object of Paul's article, as stated by him, is to emphasize three points: 1, the insidious development of pericarditis, and how often it is overlooked unless particularly sought for; 2, that the severe type may develop in the course of a very mild pneumonia, and 3, the difficulty of distinguishing obliterative pericarditis from acute general tuberculosis involving the serous membranes. He gives the diagnosis and reports cases, and in conclusion calls attention to some of the more important signs of adherent chronic pericarditis as follows:

1. A systolic retraction in the region of the apex. 2. The sign described by Broudbent, which is a distinct systolic retraction of the chest wall in the region of the eleventh and twelfth ribs on the left side. 3. Friedreich's sign, a collapse of the cervical veins during diastole, and, according to Kussmaul, a swelling of the cervical veins during inspiration. 4. The pulsus paradoxus is significant of adherent pericarditis or rather of the dilatation which follows. The pulse becomes small and feeble during inspiration, due to traction on the adhesions during the inspiratory expansion of the lungs. As these bands are drawn on it causes a constriction of the vessels of the mediastinum; thus resulting in a small, feeble pulse wave during inspiration.

24. **Gastric Acidity.**—Benedict discusses the various methods of gastric analysis for acids and remarks that it makes comparatively little difference which of the several indicators is used, provided one understands that the results are approximate and reliable only for comparative purposes. With low hydrochloric acid and high fermentation, the readings of the burette are very inaccurate, although they indicate the therapeutic principles clearly enough. For accurate tests the chyme must be incinerated.

25. **Hydrotherapy.**—The various methods of hydrotherapy are noted by Baker, who gives the results of their employment in certain cases of mental disorder in the Morris Plains asylum. He has found the wet pack at 65 F., or the full bath at 95 to 105 F., very useful in excited cases and in insomnia, and at present has a case under treatment with mild excitement and confusion in which the wet pack seems almost to restore the normal condition. The improvement appears to be progressive. He has employed hydrotherapy in 26 cases of melancholia, with or without agitation, dementia precox, hysteria, puerperal insanity, characterized by depression and slowness of thought, painful delusions, etc., lack of nervous and muscle tone, sluggish circulation, anorexia, loss of weight, greasy, acne-covered skin, intestinal fermentation and constipation. In these cases he has used ablutions and wet packs with advantage, continuing for various periods according to the case, with decidedly good results, improvement in the physical condition, quieting of the agitation, gradual disappearance of delusions and of the prior mental state together with physical improvement. He thinks the methods valuable adjuncts to hygienic and medicinal measures.

Boston Medical and Surgical Journal.

March 10.

26 *Blood-pressure Observations in Surgical Cases, Report of the Committee on Research for the Division of Surgery, Harvard Medical School, January, 1904. Wm. E. Faulkner, James S. Stone and Fred T. Murphy.

26. **Blood Pressure in Surgery.**—This, as its title indicates, is a composite article. The general results are summarized by the Committee on Surgical Research. Three questions were considered worthy of investigation: 1. Does the Riva-Rocci apparatus indicate the true blood pressure with sufficient accuracy for clinical purposes? 2. In what cases and under what circumstances are the errors due to the apparatus so great as to invalidate its advantageous use? 3. What is the value of blood-pressure observations under the following heads: *a*, as an indication for or against operation; *b*, during the course of an operation; *c*, in after-treatment of surgical cases? The first and second questions are discussed together and the summing up is given as follows:

1. The inaccurate readings obtained in cases of arteriosclerosis and excessive muscular development are partially obviated by the use of a 10 cm. armlet with the Riva-Rocci apparatus.

2. The presence of dyspnea causes inaccuracy in the blood-pressure determinations with either a broader or narrow band.

3. Change of posture invalidates the readings obtained with either form of apparatus.

4. Emotional individuals and children show fluctuations of the blood-pressure out of all relation to the actual condition of the patient.

5. Under other circumstances than those above recorded, the accuracy of the determinations with the Riva-Rocci apparatus appears to be sufficient for clinical purposes.

As regards the point *a* in the third question, the committee concluded that graphic determination of the blood pressure by means of the Riva-Rocci instrument may be an indication for or against the operation only after considering all the conditions which enter into the determination of blood pressure in any individual case, and like the symptom of leucocytosis, an estimate of the blood pressure may help to determine for or against operation in an individual case in connection with other symptoms. The cases in which it appears to offer the greatest promise are those in which the element of shock and of cerebral compression are present. As to its value in the course of operation, they remark that a change in the position of the patient is likely to cause a change of the blood pressure so great as to negative its value, and anesthesia may also affect it. The results of salt solution infusion and subcutaneous stimulation may be determined in some cases by means of the apparatus. Ordinarily, however, the condition of the patient as judged by the ordinary physical signs is better than blood-pressure reading on which to base an estimate of the physical condition. In the after-treatment of surgical cases, the number of observations made was comparatively few. They noticed a marked and rapid drop in the blood pressure shortly before death, occurring with equal regularity in cases of shock, fractures of the base, general peritonitis and sepsis. This "moribund drop" made its appearance at varying intervals before death, but in no case was there any doubt as to the prognosis from general physical signs. When recovery followed operation, except for the results of stimulation, no data of value in the after-treatment of the cases were obtained. The general conclusion is that the value of the Riva-Rocci apparatus in blood-pressure determination in surgical cases is limited to a small number of cases, chiefly those of cerebral compression and surgical shock. When these conditions are present and other confusing causes are eliminated, the value of the blood pressure as an indication for or against operation is increased. Under other circumstances the value of these observations is at present not apparent. They conclude that the use of blood-pressure tests as a routine practice is not necessary.

Cincinnati Lancet-Clinic.

March 26.

27 Histologic Structure of the Placenta. James W. Rowe.
28 *The Mechanics of Labor in a Peculiar Form of Dystocia. W. D. Porter.
29 Address of the Retiring President. Byron Stanton.
30 Address, Academy of Medicine of Cincinnati. S. P. Kramer.

28. **Peculiar Form of Dystocia.**—The special condition here described has been observed by Porter in about a dozen cases in the last ten years, and always in primiparæ. The condition may be described, he says, as follows: At an interval, varying from a few days to several weeks in advance of labor, the head is found well down in the pelvis. In some instances it almost rests on the pelvic floor. The cervical canal is obliterated and the lower uterine zone envelops the head. The external os can be felt like a dimple, firmly contracted. The uterine tissue surrounding the presenting part is so thin that the configuration of the head can be readily made out by the examining fingers. So thin is the tissue that sutures and fontanelles are easily outlined. The tyro might easily be deceived into believing that dilatation was complete, and that only the membrane separated his finger from the scalp. The condition of the cervix and lower zone is practically that which obtains in normal labor when it has advanced to the point at which the external os begins to dilate. The head occupies a much lower position than is usual at this point in labor. The condition, he thinks, is doubtless due to the necessity of economizing space. The firm abdominal walls force the fetus into the pelvis, and cause obliteration of the cervical canal and stretching and thinning the tissues of the lower zone. While it would appear that a speedy and easy labor should supervene, a tedious labor will almost certainly follow and the risks of bladder injury and septic infection are increased. The active factors in dilatation of the cervix are involved in peculiar difficulties. The lower uterine segment envelops the head, fitting snugly like a skull-cap, and this grasp is only accentuated by uterine contractions preventing distension of the membranes with water in advance of the head. The pains are nagging and ineffective. Artificial dilatation, he remarks, is the proper treatment. It should be employed early and is easy on account of the thinness of the cervical tissue, but this is apt to become caught between the head and the symphysis during the second stage. It can be pushed up, but descends again. The whole of the uterus is too low and unusual care is necessary to prevent tearing. The low position of the uterus also insures an abnormally low position of the bladder, exposing it to increased danger of trauma, and care should be taken to keep the bladder practically empty. In case the second stage is very difficult, considerable bruising of the bladder wall is inevitable.

St. Louis Medical Review.

March 26.

31 Report of Committee on Public Health and Legislation, to St. Louis Medical Society.
32 My Autobiography and Reminiscences. (Continued.) S. Pollak.

Medical Record, New York.

March 26.

33 *Is Iodid of Potassium a Specific in Lobar Pneumonia? A Preliminary Report [illegible]
34 Report of a Case o [illegible] Some Observations on the [illegible]
35 Cases of Urethral S [illegible]. James Pedersen.
36 *Some Observations While Serving in the Philippines. J. A. Guthrie.
37 *Value of Total and Differential Leucocyte Counts During the Course of Typhoid Fever. Henry A. Higley.
38 *A New Sign of Basilar Meningitis. G. W. Squires.

33. **Iodid of Potassium in Pneumonia.**—Altshul claims that he has not had a death in twelve years out of 62 cases of pneumonia treated with iodid of potassium, and thinks that the action of the drug is directly antagonistic to the disease. The method of treatment is to give an initial dose of at least 10 to 15 grains, increasing it by 5 to 10 grains every two or three hours day and night, according to the severity of the case, until defervescence is well established. However soft the pulse may become the dose is kept up, the guide being the regularity of the heart, as determined not by the pulse alone, but by auscultation of the heart itself and the character of the heart sounds, especially the second pulmonic. If this be clear and distinct, we are accomplishing what is desired. If there is irregularity in the heart itself, strychnin in the dose of 1/60 to 1/40 gr. every four or six hours is given until the heart becomes regular. In this manner he has in a large number of cases given 1,000 to 1,500 grains of the iodid in a 50 per cent. solution, in milk, per day, and in one case as high as 1,800 grains. Dr. H. T. Prentiss of Holyoke, Mass., reported to him a case in which he gave 3,000 grains daily for about four days, and to another patient, a child, he gave 2,100 grains daily for two days with no signs of intolerance, and recovery in both cases. At the commencement there may be a slight coryza, but this disappears as the dose is increased. He insists on the importance of the condition of the heart during this treatment, and believes that failures are due to faulty methods and lack of courage.

36. **Tropical Hygiene.**—Guthrie thinks that there is too much germophobia in the tropics and that the microscope may be over-used. The sun's rays exert more influence in the Philippines than in any other tropical country, because the whites there have not yet learned to accommodate themselves to their environment. They do not dress properly nor bathe sufficiently to keep the skin in good order. Besides the sun's rays there are other agencies such as insects in choice assortments; there is in reserve an array of living things to prey upon the poor alien's depleted cuticle. Insects not only expend their poisons through stings, but there is another easy avenue, that is, the vile habit of "tuba" drinking. Tuba is obtained by tapping the blossom stalk of the cocoanut tree, allowing the sap to drop into a joint of bamboo for days. In the meanwhile every kind of insect gets into it. Though they may be drained out afterwards, there remains in liquid form a strong essence of bug. This, he thinks, is the main reason why it is so poisonous. Another alcoholic poison is "bino," against which he warns Americans. This may be any kind of doctored fluid, but is very apt to contain wood alcohol. It may safely be said that alcohol is not a necessity in any part of the tropics, but if one is addicted to it, he should confine himself to the best that is to be had, and should never drink before the midday meal. In fact, drinking should be regulated by a competent physician in any case. To live properly, dieting one's'f, keeping down the deposit of uric acid with plain food is best.

Rest between the hours of 11 and 3 is essential, avoiding the sun, keeping the body cool by frequent bathing; lemon and lime juice in water is much more wholesome than alcohol. When the tissues become lax, as shown in many cases of dilatation of the stomach and dropsical effusion of the lower limbs, it is time to take two or three months' vacation and go to a cooler climate. The wearing of a flannel band day and night is not a necessity but a habit. He thinks, however, that the abdomen should be protected while sleeping. The water supply is the one thing where care is imperative, the drinking of distilled water if possible, and having the clothing washed in the same, or boiled. He advises against eating food handled by natives, not that he wishes to criticise the Filipinos' personal habits, but that he thinks their hands are not microscopically clean. Americans there should disinfect their hands by occasional ablution in a 0.1 per cent. solution of bichlorid, and be warned against the practice of scratching, keeping the hands away from the face and hair as much as possible. Scrupulous care of the teeth is another important matter, and afterwards he would rinse the mouth and gargle the throat with warm Dobell's solution, allowing some of the warm solution to be snuffed up and flow past the posterior nares without swallowing. By adopting these habits of microscopic cleanliness, he thinks that the chances of contracting disease would be reduced to a minimum. He remarks in conclusion that Americans are beginning to learn how to live in the Philippines and he is pleased to observe it. He suggests that his plan of cooling buildings with refrigerating stoves be tried if only as an experiment.

37. **Leucocytosis in Typhoid.**—The characteristic typhoid leucocytosis, such as reduction in the total number with a relative increase of large mononuclears and a relative decrease of polymorphonuclears should be watched, Higley thinks, in this disease. So long as the typhoid infection remains pure the characteristics of the total and differential leucocyte counts peculiar to this disease are maintained, but they are altered in case of complicating infections. Therefore, frequent and careful, total and differential leucocyte counts may be of great value in enabling the physician to keep in touch with the variations in any given case.

38. **New Sign of Basilar Meningitis.**—The sign which Squires has found to be invariably present in this disease, frequently as early as the fourth or fifth day, according to the severity of the attack, is a rhythmical dilatation and contraction of the pupil. The method of obtaining the sign is as follows:

> Place the child's head between the knees of the physician, face upward, with the body of the child supported *on the bed, table, or* lap of the nurse. Grasp the sides of the child's head with each hand and produce gradual and forcible extension of the head on the spinal column. As the head is *brought* back in this extension the pupils will be seen to commence to dilate simultaneously with the commencement of extension, the more extreme the extension the more the dilatation. *Now on* flexion the pupils contract so that when the chin is forcibly brought to the manubrium the pupils are well closed up. This can be done several times a minute, and each time the pupillary phenomenon will be repeated. The dilated pupils, with extreme retraction of the head in the late stages of the disease, may be in some measure mechanical or hydrostatic *from increased* pressure by effusion on the nerve roots or centers at the base of the brain. An early recognition and treatment of this disease is very important, if we would hope to save many of our little patients.

Northwestern Lancet, Minneapolis.

March 15.

39 *Physical and Chemical Forces in Vital Operations. Charles F. Dight.
40 Some Local [illegible] J. Clark Stewart.
41 *A Note on [illegible] esthesia for Short Operations—Pleasant, [illegible] Edward J. Brown.

39. **Vitality.**—Dight concludes *that aside* from the processes by which the living cells build lifeless food material up into living protoplasm *and the facts of* reproduction, the physical and chemical forces explain the vital phenomena. The difference, *however, between* living and dead matter is so far unbridged, and *the* possibilities of germ cells can not be explained by chemistry.

41. **Primary Ether Anesthesia.**—Brown has used primary ether anesthesia in operations *on* the throat and nose since last June in 21 different patients, mostly young children. He administered the ether by the drop method with the ordinary chloroform mask, using from 8 to 10 grams in from one and a half to two minutes; in most cases following one or two applications of 20 per cent. cocain. In a few of the later cases, including the removal of adenoids in four-year old twins in his own family, the cocain was omitted without apparent disadvantage. He finds that children take ether without objection, breathing deeply with the mouth open, and vomiting has not occurred nor undue hemorrhage. He considers the method pleasant, safe and efficient.

American Journal of the Medical Sciences, Philadelphia.

March.

42 *Perineal Zoster with Notes on Cutaneous Segmentation Postaxial to the Lower Limb. Harvey Cushing.
43 *Late Effects of Typhoid Fever *on the Heart* and Vessels. W. S. Thayer.
44 Multiple Sarcoma. Thomas A. Claytor.
45 Tuberculous Stricture of the Ascending Colon, with Sudden Total Obstruction of the Bowel; Perforation of the Intestine; Removal of the Cecum and Half the Ascending Colon; Recovery. Thomas S. Cullen.
46 *Study of Normal and Pathological Conditions of the Bursæ of the Neck, with Special Reference to the Subhyoid Bursa. Willis S. Anderson.
47 *Hemolymph Nodes. Hughes Dayton.
48 Syphilitic Affections of the Skin and Osseous System in the Newborn. W. Reynolds Wilson.
49 *Study of the Caloric Needs of Premature Infants. John L. Morse.
50 *Experimental Study of the Relation of Cells with Eosinophile Granulation *to Infection with an Animal Parasite (Trichina spiralis).* Eugene L. Opie.
51 Brain Tumor Involving the Superior Parietal Convolution; Two Operations for Its Removal; Partial Success, with Some Relief of Symptoms; Death Two Years Later; Autopsy. Theodore Diller.
52 Congenital Cysts of the Fourth Ventricle. Report of Two Cases Associated with Tumor of the Optic Thalamus and Crus Cerebri. J. Ramsay Hunt.
53 Case of Accidental Poisoning by an Unknown Quantity of Atropin Sulphate; Recovery. Samuel Stalberg.
54 Three Cases of Pernicious Anemia with Description of the Pathologic Changes Found in the Spinal Cord. Robert Reuling.
55 A Human Embryonic Vesicle Showing Early Placenta Formation. John M. Swan.

42. **Perineal Zoster.**—Cushing reports two cases from which, as a text, he discusses the general subject of nerve distribution from the lower portion of the cord and its termination. The article is not capable of being abstracted in sufficient detail to do it justice, and would also require the reproduction of many of the illustrations.

43. **Typhoid Fever.**—Thayer's conclusions, in brief, from a study of 183 cases of individuals who have had typhoid, are as follows: 1. The average systolic blood pressure in these old typhoids was appreciably higher than in the control observations of healthy individuals. 2. The higher average of the blood pressure was constant in every decade. 3. In many instances *among them the blood pressure* exceeded appreciably the limits ordinarily expected. 4. The radial arteries were palpable in a proportion nearly three times as great as was found to be the case in supposedly healthy individuals who had never had the disease. 5. The average size of the heart was greater than at the time of their first appearance at the Johns Hopkins Hospital, with typhoid fever. 6. Cardiac murmurs were considerably more frequent among old typhoids and in the same cases during attacks. 7. In 8 cases where the heart was considered normal on discharge from the hospital, subsequent examination revealed hypertrophy with mitral insufficiency. One case showed a possible mitral stenosis, one aortic insufficiency, one general arteriosclerosis *with hypertension.* 8. *In one case the aortic diastolic murmur* was present four months after discharge, but disappeared later. 9. *Patients* whose pulse was very irregular during the disease showed on the average a higher blood pressure than others. In other respects their condition was very little different. 10. In cases where the systolic murmur at the apex was observed during the attack, showed later an increase in the blood pressure and in the size of the heart, as compared both with the mean of observations made on the same cases on admission and with the general average for the old *typhoids.* Nearly one-quarter of the cases in which during the attack systolic apical murmurs were detected, showed later evidence of organic heart disease. Indeed the majority of all the organic lesions *among the* 183 old typhoids were found among these 31 cases. Thayer remarks that these figures are not as adequate as a larger series would be, but he thinks that they

indicate that the disease is an active factor in the etiology of a considerable number of heart lesions later in life.

46. **Bursae of the Neck.**—The history of these formations is reviewed by Anderson, as are also their symptoms. The cases he has observed were in females, but he thinks their sensitiveness to the deformity may be the cause of their having revealed it. Both cases are reported in detail, and others from the literature are briefly abstracted. As regards treatment he remarks that there is little hope from internal medication. The local use of absorbents or irritants seldom does good. Sometimes, as in one case reported by the author, the cyst disappeared without treatment. No irritating local applications should be used as fistula has followed such. Simple incision with drainage is of no value; if it closes, recurrence follows; if it remains open, fistula is produced. Drainage of the sac and use of local absorbents to produce closure has been tried successfully in some cases. Failures are also reported, and in some with a chronic suppurating fistula as the result. When it is recalled that the sac normally extends up beyond the hyoid bone, narrowing as it ascends, and is usually prolonged downward to an infundibuliform prolongation, it is easy to understand why it can not be readily obliterated. Incision and cauterization have been tried and good results reported. Solutions of iodin, carbolic acid, etc., to excite inflammation have been used with varying results. Panus cured a case by the injection of chlorid of zinc solution into the sac without evacuation. Partial extirpation of the cyst is unsatisfactory and not advisable. Complete extirpation of the cyst is by far the most satisfactory method. Difficulty has often been experienced in dissecting it out entirely. Weir's method of injecting the sac with melted paraffin and allowing it to harden before dissection is an excellent method, and allows the cyst to be shelled out entire.

47. **Hemolymph Nodes.**—From a study of the subject and experimental work Dayton concludes that both histologic and experimental evidence indicate the existence of hemolymph nodes as organs *sui generis.* The chief practical point is to recognize the capability for phagocytic destruction of red blood cells which is possessed to a high degree by certain lymph structures, rather than to dwell on the individuality of the hemolymph node. The occurrence of transition forms from the node containing blood sinuses only to that with sinuses containing only hemolymph, renders a strict classification impossible. For practical purposes Warthin's grouping of all varieties under the heading of hemolymph nodes seems satisfactory.

49. **Premature Infants.**—Morse has studied the subjects of the caloric needs of prematurely born children, ~~and illustrates~~ his paper with diagrams ~~and temperature curves~~. The conclusion which he reaches is that the caloric need of premature infants is relatively greater than that of full-term children. In part this is due to the small size and the comparatively large surface area of premature infants, from which they lose heat faster than do the full-term children, and partially to the incomplete development of their digestive power, utilizing a smaller portion of caloric value of the food. He emphasizes the importance of protecting premature infants against loss of heat and providing for them food which shall throw the least work on their imperfectly developed digestive organs.

50. **Eosinophiles in Parasitic Infection.**—Opie has experimented on guinea-pigs with an injection of *Trichina spiralis*, and finds that it causes an increase of eosinophiles in the blood comparable to that which accompanies human infection. There is no constant alteration in the number of cells until the end of the second week after the infection, when their relative and absolute number rapidly increases and reaches a maximum at the end of the third week. At this time embryonic trichinæ are being transmitted from the intestinal mucosa by way of the lymph vessels and blood through the lungs to the muscles. Eosinophile cells accumulate in the mesenteric lymph glands and lungs, forming foci which resemble small abscesses in which polynuclear leucocytes are replaced by eosinophile cells. There are also characteristic changes in the bone marrow. The fat is diminished and cellular elements replace it, and the eosinophiles are present in immense number. The eosinophile myelocytes peculiar to the bone marrow are especially numerous; the number of eosinophile leucocytes in the blood always diminishes before death so that the proportion usually becomes less than 1 per cent. Infection with a very large number of trichinæ causes a rapid diminution of the number of eosinophile leucocytes and is quickly fatal. Mild infection stimulates them to active multiplication, but severe infection causes their destruction.

Critic and Guide, New York.

March.

56 *What Can We Accomplish in Cases of Laryngeal Tuberculosis? W. Freudenthal.
57 *The Relation of the General Practitioner to Eye-strain in His Patients. S. Solis-Cohen.

56. **Laryngeal Tuberculosis.**—Freudenthal remarks in regard to his having previously called attention to a pre-tuberculous laryngitis, which may be either anemic or hyperemic. In the anemic stage he uses insufflations of zinc-sozoiodol with sugar-of-milk, 3 per cent. nitrate of silver applications, liquor ferri sesquichlor (1 to 30), and balsam of Peru. He avoids astringents and caustics as they might produce more effects than desired. In the hyperemic stage he has had good results with a solution of 5 parts creosote; spirits of wine, 10, and glycerin, 50. Applications of tannin, alum and other astringents have been used with benefit. Once laryngeal tuberculosis is established the prognosis is considered absolutely bad by some, but with this he disagrees. He has seen some cases recover, and this depends on the character of the pulmonary trouble. If there are simple infiltrations with no symptoms but hoarseness, the best plan is to treat the pulmonary disease and leave the larynx alone, but if the tissue is broken down and ulcerations appear, two drugs have given him special satisfaction: the first is anesthesin (Ritsert), and the second orthoform. With ulcerations or denuded surfaces he gives the patient 1.5 to 3 grains of anesthesin, or even more with sugar, several times daily, without any water. They often give the patient great relief. In most cases, however, topical applications are necessary, and he has used orthoform, pure or in emulsion, with menthol, which goes under the name of Freudenthal's emulsion, and is an excellent anodyne when we can reach the ulcer. Astringents may be combined with the orthoform. In cases of ulcers he has found lubricating the esophagus with oil before the taking of food of value. He has given olive oil for the purpose, but its taste is an objection. The last year or so he has used as a curative measure high frequency currents, applying a curved electrode directly to the larynx. The application is not difficult or dangerous, and not even unpleasant if one is careful. He will publish his experience with this method more fully in another place.

57. **Eye-Strain.**—Solis-Cohen calls attention to the importance of eye-strain, and especially to the work of Gould in this regard.

Medical Sentinel, Portland, Ore.

March.

58 Brain Injuries. Walter T. Williamson.
59 *Treatment and Prognosis of Tubercular Phthisis in Idaho. M. M. Harshbarger.
60 Report of an Interesting Pylorectomy, Also a Nephrectomy and a Prostatectomy. A. C. Behle.

59. **Tuberculosis in Idaho.**—Harshbarger holds that Idaho has an ideal climate and altitude for the successful treatment of tuberculous disease. Creosote is the most satisfactory drug for treatment, but cinnamate of soda is a valuable adjunct and possibly superior. He holds that the laity should be educated as to the contagion, and also that consumption in its incipiency is a curable disorder.

Annals of Gynecology and Pediatry, Boston.

March.

61 An Account of the Work, Including Obstetrical Technic, at the Lying-in Hospital of the City of New York. Charles H. Bradley.
62 *Formation and Resolution of Peritoneal Adhesions and Exudates. Horace G. Wetherell.

62. **Peritoneal Adhesions.**—Wetherell concludes from his study of cases that peritoneal adhesions and exudates are essentially conservative, and that with rare exceptions when the source of irritation or infection which causes them is removed, they will be taken up and disposed of. That tympanites,

through increasing the intra-abdominal pressure without peristalsis, and even so-called intestinal paralysis are means to the same conservative end. We should avoid combating these during the acute stage of disease by untimely operation or the giving of food or cathartics. That ordinarily an interval operation will be required for the removal of the source of infection in order to restore the patient to health and insure immunity from relapses; such an operation in skilled hands is many times safer than the let-alone policy. Of course, this does not apply to severe peritoneal infection of perforative origin, for which prompt operation is required.

Interstate Medical Journal, St. Louis.
March.

63 *Anatomical and Clinical Study of 200 Postmortem Specimens of Prostatic Hypertrophy. (Preliminary Report.) Wiley Broome.
64 Radiotherapy in Treatment of Acne Vulgaris. (To be continued.) Martin F. Engman.
65 Case of Abdominal Aneurism. W. J. Calvert.

63. **Prostatic Hypertrophy.**—Broome's article points out the lack of a general consensus of opinion in regard to the etiology of the condition, and the fallacy of holding that prostatic enlargement is the origin of urinary obstruction in all cases. He reports a case where the largest possible prostate was found without any symptoms whatever. He quotes Senn's statement that the size of the prostate is no criterion as to the indications of necessity for operation. He promises a fuller paper on the subject in a future number.

Dominion Medical Monthly, Toronto.
March.

66 *Ventrofixation of the Uterus with Subsequent Normal Deliveries. A. Lapthorn Smith.
67 A Medical Medley. J. S. Sprague.
68 Report of a Case of Scald. Everett S. Hicks.

66. **Ventrofixation.**—Smith believes that the evil effects of ventrofixations in subsequent pregnancy are due to the faulty manner in which they have been performed, namely, the uterus being put upside down forward, and fastened there with its back to the abdominal wall, so that the cervix pointed toward the liver. Properly, the anterior surface of the fundus should be scarified and attached to the abdominal wall just above the pubis. If this were invariably done we should hear no more of abnormal labors after ventrofixation. He has performed the operation nearly 250 times, and with almost invariably satisfactory results.

Western Medical Review, Lincoln.
March 15.

69 *The Objections to Chloroform. W. O. Henry.
70 Observations on Obstetrics in General Practice. J. F. McNulty.
71 Some of the More Common Forms of Hernia. B. B. Davis.
72 Optic Neuritis. S. E. Cook.
73 *Exophthalmic Goiter. LeRoy Crummer.
74 Extra-uterine Pregnancy. John P. Lord.

69. **Chloroform.**—Henry has had an unfortunate case of death from chloroform in a patient on whom he was about to perform a uterine operation. He reviews the subject and opinions, and concludes that chloroform is a dangerous anesthetic, much more so than ether; except in serious lung and kidney trouble, chloroform should not be given unless ether and A. C. E. mixture are contraindicated. He says all hospitals should be provided with nitrous oxid gas for short operations or to precede the ether, and the latter should be administered by the drop method.

73. **Exophthalmic Goiter.**—Crummer reports two cases, and thinks we can conclude from them as to the danger of the use of iodin in simple goiter, and, further, that there is reasonable hope of aid in the use of the antithyroid specific form of treatment in exophthalmic goiter. Every case of persistent rapid heart, especially in women and young girls, should be considered as possibly due to Graves' disease and be properly treated. One of his patients was put on the Lanz treatment, taking the milk of dethyroidized goats, and was greatly benefited. (See abstract of Lanz's article in The Journal, xl, p. 689.)

Pediatrics, New York.
February.

75 *Tetanus and Vaccine Virus. John H. Huddleston.
76 Cerebral Palsy of Childhood. M. L. Graves.
77 *Hare-lip and Its Treatment. Charles R. L. Putnam.
78 *Speech Defects in Relation to Mentally Deficient Children. Henry Ashby.
79 *The Fatality of Whooping Cough. Eliza H. Root.
80 Report of a Case of Favus of Scrotum, Co-existing with Ringworm of the Thigh, Giving Identical Trichophyton-like Cultures. A. D. Mewborn.

75.—This article has appeared elsewhere. See The Journal of January 9, ¶61, p. 128.

77. **Hare-Lip Operations.**—The important points in hare-lip operations, as enumerated by Putnam, are as follows: To cleanse the nostrils carefully with boric acid and sterile water, also the lips and mouth. Etherize the patient but lightly, so that the coughing reflex will prevent blood inhalation. Free the lips and cheeks thoroughly so as to take all tension from the intended line of sutures. Control the coronary arteries with the fingers; cut flaps; put stitches in the mucous membrane, to be tied later; put "principal" suture well back from the edges of the wound, and do not tie it too tightly. Approximate the edges carefully with superficial sutures; wash out the stomach for blood and dry the wound and dust with aristol. In case of double hare-lip he would advise against immediate nursing as the result is always somewhat injured by the procedure.

78. **Speech Defects.**—In considering the cause of speech defects ~~we~~ should note how far they are the result of disease or mal-development in the mouth, nose and pharynx and nasal cavity from chronic catarrh, or ~~in the worst cases~~ by adenoids. The nasal obstruction, if considerable, interferes with the escape of air through the nose in articulating the letters M and N, and so on. The most important defects in the mouth cavity ~~is~~ a deficient or cleft palate, b~~ut we have~~ others such as tongue-tie, large tongue, long tongue, thick tongue, etc. In ~~certain Mongolian idiots and cretins enlarged tongue exists, but it is doubtful whether it has much to do with the delay in speech.~~ Tongue-tie is not very important. If the child can protrude its tongue so that the tip passes over the lower lip and can pronounce words beginning with L, its tongue is free enough. The V-shaped palates have been regarded as the cause of defective speech. They are often associated with more or less nasal obstruction, the posterior openings being narrow or blocked with adenoids. There are some few cases where the high palate is associated with speech suggesting cleft palate, indistinct and of a nasal twang. ~~He thinks it would not be surprising to find that it had some effect when we consider how much trouble children operated on for cleft palate experience in acquiring normal speech.~~ Possibly in such cases the soft palate acts imperfectly in shutting off the cavity of the pharynx from the nasal cavity, but it is more likely to be an imperfect innervation than a speech defect. The two most important questions in examining a child who fails to talk at three years or over is, first, is the child deaf; second, what is its mental status as compared with other children of the same age. Oral deformities are hardly likely to explain failure to talk, though long-continued ill health or some recent illness will have to be considered. The detection of deafness is not always easy, and parents are constantly deceived. A child may hear loud noises and yet be unable to distinguish words. As the child becomes older and more intelligent the difficulty is less. Some feeble-minded or abnormal children will absolutely refuse to answer questions, though it is clear that they hear the sound. In other abnormal children the attention is defective. Cases of so-called congenital aphasia are not altogether rare, though such children are not often of normal intelligence. It is rare, ~~Ashby thinks~~, that some defect or mental feebleness does not accompany the failure to talk. The chief defects met with in ordinary children are articulation defects varying from the mispronunciation of a few consonants to an almost unintelligible mumble. Th~~e term "lalling" is sometimes used to include these defects.~~ Marked lalling in children of six years or more is nearly always associated with some subnormal intellectual power, though the latter may be present without any speech defects whatever. ~~He notices~~ the development of infants, and calls attention to the fact that defective children are generally clumsy in other movements, as in swallowing. The first thing in the treatment is to test the ~~hearing, examine the mouth, nose and throat~~, and estimate the

~~child's mental~~ powers. Often the nature of the defect of articulation may be decided by means of the physiologic alphabet, using the names of common objects familiar to the child, besides scamping and transposing consonants. A thick, indistinct utterance is very common, and whispering is not uncommon. Breathing exercises, he thinks, are of much value in conjunction with other physical exercises in these cases. Singing or vocal exercises of the larynx are likely to be useful. Much will depend, of course, on the child's intelligence and perseverance.

79. Whooping Cough.—The statistics of whooping cough, as based on the mortality returns in the principal cities and elsewhere, are noticed by Root, who points out that whooping cough is as much to be dreaded as a fatal disease as scarlet fever, and may not leave the patient in as good a condition as before. Sometimes severe disturbances of the nervous system remain. She believes that whooping cough should be under the control of the authorities and subject to quarantine as much as scarlet fever. It is less individually contagious, is not carried by one patient to another as far as known, and its control need not be as complicated and far-reaching as that of scarlet fever, but it is imperative, she holds, that whooping cough should be isolated and controlled.

Virginia Medical Semi-Monthly, Richmond.

March 11.

81 Nine Cases of Resection of the Intestine. Geo. Tully Vaughan.
82 Description of a Curious Case of Malformation—Child Born with Heart Outside Its Body. J. Gates Good.
83 Jottings from a Practitioner's Notebook About Gonorrhea and … T. Souwers.
84 … ions on the Prophylaxis Treatment of … J. C. Walker.
85 * … ower Extremities—134 Cases of Spontaneous and Surgical Amputations—A Historical Résumé. B. Merrill Ricketts.
86 Early Operation for Appendicitis from a Pathologic Standpoint Verified. J. G. Carpenter.
87 Turpentine in Surgery. W. K. Gatewood.

85.—This article has appeared elsewhere. See The Journal of January 23, ¶57, p. 270.

Wisconsin Medical Journal, Milwaukee.

March.

88 Spina Bifida. H. Reineking.
89 The Depurative Function. Robert C. Brown.
90 Surgical Progress. W. H. Earles.
91 Myomectomy of Uterine Fibroids. A. J. Puls.
92 Infant Feeding. Bertha E. Thomson.

Medical Fortnightly, St. Louis.

March 10.

93 Distal Termination of Complete Duplicate Ureters. Byron Robinson.
94 Radium; Its Possibilities in Medicine. M. V. Ball.
95 Decortication and Nephropexy for the Relief of Nephritis and for the Purpose of Anchoring a Floating Kidney. R. F. Amyx.

The Post-Graduate, New York.

March.

96 Some Valvular Lesions of the Heart. Presentation of a Case.
97 … Abortion in View of Its Re- … ge G. Ward, Jr.
98 … Thomas E. Satterthwaite.
99 … Autopsy Room of the New York Post-Graduate Hospital Robert H. Halsey.
100 Record of 125 Consecutive Cases of the Analyses of Urine in Ether Anesthesia. Arthur F. Chace.

Woman's Medical Journal, Toledo.

February.

102 Filaria. (Concluded.) Mary M S. Johnstone.

Journal of Comparative Neurology and Psychology, Granville, Ohio.

March.

103 Relation of the … Muscle of the Frog to Neighboring … Wilson
104 Space Percepti… M. Yerkes.
105 Note on the Si… of the Form and Contents of Nucleus in Spinal Ganglion Cells of the Fetal Rat. Shinkishi Hatai.
106 Establishment of Association in Hermit Crabs, Eupagurus Longicarpus. E. G. Spaulding.

Northwest Medicine, Seattle.

March.

107 Leprosy in the Sulu Archipelago. J. W. Amesse.
108 Abdominal Contusions. A. E. Bolton.
109 Swedenborg's Vortex-rings and Some of Their Applications in the Realm of Natural Science, with Special Reference to Subject of Thought. E. R. Edson.
110 Tent Treatment of Consumption at the Kings County Hospital. W. P. O'Rourke.

Atlanta Journal-Record of Medicine.

March.

111 Mastoiditis: Causes, Prevention and Treatment. J. M. Crawford.
112 Pneumonia. James B. Baird.
113 Postmortem Findings in Case of Diabetes Mellitus. Wm. C. Pumpelly.
114 Preliminary Report on the Utilization of Plastic Lymph as a Reparatory Tissue in Abdominal Surgery. E. C. Davis.
115 X-ray Treatment of Inoperable Carcinoma of the Breast; Report of a Case. James N. Brawner.

New York State Journal of Medicine, New York.

March.

116 Sewage Disposal as a Means to Purify the Water Supply of the Cities and Towns of the State. Charles B. Tefft.
117 Presentation of a Patient from Whom Was Removed the Superior Maxilla, Left Side, and the Bone Removed. David P. Austin.
118 Etiology and Pathology of Salpingitis. Edward J. Ill.
119 *Surgical Treatment of Salpingitis. H. C. Coe.
120 *Palliative Treatment of Salpingitis. W. Travis Gibb.
121 Suggestions for the Examination of the Presumably Insane. R. H. Hutchings.
122 Review of Some Statistics of Insanity. William Mabon.

119 and 120.—See abstracts in The Journal, xli, p. 1225.

Medical Examiner and Practitioner, New York.

February.

123 Points on Technic in Routine Examinations of Urine. G. A. de Santos Saxe.
124 Middle Ear Suppuration in Relation to Life Insurance. Wendell C. Phillips.
125 Adenoid Vegetations of the Nasopharynx, Especially Lymphoid Hypertrophies and Their Relation to Life Insurance. C. L. Steenson.
126 Diagnosis and Treatment of Chronic Stone Impaction of the Common Duct. John J. McGrath.
127 Contribution to the Chemistry of Diabetes Mellitus, with Special Reference to Coma and Its Treatment. James H. Reed.

Proceedings of the Pathologic Society of Philadelphia.

January.

128 *Actual and Comparative Resistance of the Acid-fast Bacilli. Randle C. Rosenberger.
129 Report of a Case of Brain Tumor and of a Case of Ruptured Tubal Pregnancy. Moses Behrend.

128.—This article appeared elsewhere. See The Journal of March 26, ¶72, p. 858.

Pacific Medical Journal, San Francisco.

March.

130 Use of the Cystoscope. H. A. Klussman.
131 Duration of Life After Fatal Injuries. H. D'Arcy Power.
132 Observations on Neurasthenia. Winslow Anderson.

Albany Medical Annals.

March.

133 Discussion on the Character of Milk Supplied to Cities. Production of Sanitary Milk from the Producer's Standpoint. R. A. Pearson.
134 Practical Side of the Question of Milk Supply. Charles Harrington.
135 Contamination of Milk. Rowland G. Freeman.

Medical Age, Detroit.

March 10.

136 Contracted Kidney and Its Clinical Significance. Walter L. Bierring.
137 Syphilis in Children. William Wormley.
138 Work and Worth of the General Practitioner. O. S. Chapman.

American Practitioner and News, Louisville, Ky.

February 15.

139 Cystitis in the Female. Charles W. Hibbitt.
140 Acute Articular Rheumatism. R. Lindsay Ireland.
141 Cancer of the Breast. F. W. Samuel.

FOREIGN.

Titles marked with an asterisk (*) are abstracted below. Clinical lectures, single case reports and trials of new drugs and artificial foods are omitted unless of exceptional general interest.

British Medical Journal, London.

March 19.

1 *Treatment of Serous Effusions. James Barr.
2 Some Points in the Treatment of Hemoptysis at a Sanatorium. J. Penn Milton.
3 Two Cases of Lung Disease Treated with the Emanations from Thorium Nitrate. Gordon Sharp.
4 The Therapeutics of Sea Voyages. Martyn Westcott.
5 *Some General Results of Affections of the Nose and Nasopharynx. W. S. Syme.
6 Note on … Sera. Marc Armand Ruffer and M.
7 * … Diplococcus Pneumoniæ in Culture; … Possibly of Use for the Identification of that Microorganism in Practice. M. H. Gordon.

8 Pathology and Surgery of Certain Diseases of the Pancreas. A. W. Mayo Robson.

1. The Treatment of Serous Effusions.—Barr had a patient who suffered from hydrothorax with cancerous conditions and effusion rapidly reproducing itself, requiring repeated tappings. In order to make life more endurable, he thought it would be well to try the use of adrenalin to lessen the amount of effusion, and after the fifth aspiration, which took place four days after the preceding one, a dram of a 1 in 1,000 solution of adrenalin chlorid was injected. There was no further secretion, and the old lady spent the rest of her life in comfort as far as her chest was concerned. Since then he has used it in a fair number of cases of pleurisy with effusion, invariably with success, using one dram on each occasion. He has since extended this treatment to ascites. The first cases were of hepatic cirrhosis with obstruction, and while the results were not striking, the patients showed no ill effects. In one case some slight collapse was noticed after the injection, but he does not credit it to the adrenalin. Collapse after tapping ascites is not an uncommon event. The next use of the remedy was in a case of pericarditis where 40 minims were injected into the pericardium, with the result of nearly cutting off the circulation of the heart, but the condition was quickly relieved by the injection of 3 minims of a 1 per cent. solution of nitroglycerin and 2 of aqua atrop. sulph. No further tapping was needed. It was evident that in this case the dose was rather too large. Later in the same case a pleural effusion was treated similarly, and it occurred to Barr that in addition to the tapping, if he substituted another fluid, say air, for that which was withdrawn, he might prevent subsequent adhesions. With this object he injected half a pint of sterile air, and it was not all absorbed for at least ten days. He thinks the adhesions were lessened by the injection. Another case of ascites is reported treated by injection of 2 drams of adrenalin chlorid, with the best results, the ascites being apparently completely checked, and four pints of aseptic air were introduced with the adrenalin e describes the apparatus which he has devised for of air and adrenalin, consisting essentially of a s bottle, with three openings at the top and an bottom, each guarded by a glass stopcock. One in connection with the water reservoir, the second is with a large thistle head filled with cotton wool for filtering the air, the third is the outlet for the aseptic air to be driven into the pleural or peritoneal cavity by allowing the n in through the reservoir. This apparatus was ersome, and he has substituted for it a little inich a German veterinary surgeon uses for introıseptic air into the udders of cows, fitting a small c pump to the apparatus, consisting of a trochar canula with two arms and a siphon tube, a syringe for injecting the adrenalin and an apparatus for introducing the filtered air. The whole can be boiled, with the exception of the cotton wool filter, and it can be sterilized by heat as often as is necessary. A detailed summary of some of the cases is given. He remarks that the treatment is easily carried out and the apparatus is fairly perfect, but aseptic precautions are necessary. He objects to the use of pure oxygen instead of air, holding that it would be absorbed too quickly, and the injection of air has an advantage in that it prevents collateral hyperemia and edema of the other lung, which sometimes follows the withdrawal of large quantities of fluid.

5. Nasal and Nasopharyngeal Disease.—Syme calls attention to the conditions which may follow these local disorders. He thinks it is advisable in cases of chronic illness associated or not with gastric derangement, to include among the possible causes certain affections of the nose and nasopharynx, especially where the discharge is of a mucopurulent or purulent character. Nasal affections, he thinks, in these instances may be possible contributory causes. It is probably some physical weakness which makes the patient more liable to the evil effects of the introduction of purulent matter into the stomach. The nasal treatment, therefore, while necessary, must be looked on as a reinforcement of, rather than an alternative to, other methods.

7. The Pneumococcus.—Gordon points out and illustrates the formation of capsule around the pneumococcus in gelatin cultures at 37 C., and thinks that its property of forming such in one day may be applied to the identification of the microorganisms and their differentiation from the specimens of *Streptococcus pyogenes*.

The Lancet, London.

March 19.

9 *The Pathology and Surgery of Certain Diseases of the Pancreas. A. W. Mayo Robson.
10 *Chemistry of the Urine in Diseases of the Pancreas. P. J. Cammidge.
11 Acute Appendicitis: Its Diagnosis and the Indications for Operation. William Russell.
12 Early Diagnosis of Acute Intestinal Obstruction. W. Hale White.
13 Case of Eclampsia Treated by the Administration of Chloroform. John F. Jennings.

9. Pancreatic Disease.—Robson points out the possibilities of gastric ulcer being associated with disease of the pancreas and invading it by new growth, and changes in the anatomy of the ducts as bearing on the question of producing jaundice and pancreatic disorder. He describes the anatomy of the pancreas, and goes at length into the special symptoms of its disease: the digestive, including steatorrhea and azotorrhea or faulty digestion of albuminous foods, excessive secretion, greasy, pale diarrhea, dyspepsia, alteration of the appetite, emaciation, nausea and vomiting. Among the physical signs are tumor, fever, pain and tenderness, pressure symptoms, such as ascites, owing to the involvement of the portal vein, hemorrhage and jaundice. The metabolic symptoms include diabetes and glycosuria with other changes in the urine, such as indicanuria, though observations show the amount of indican is no guide to the presence or absence of disease. Pentosuria is of greater diagnostic importance. He thinks certain reactions may be obtained from the urine in the greater number of if not in all cases of pancreatic disease, which are a material help in the diagnosis. He thinks it is possible to distinguish between acute and chronic inflammation, simple and malignant disease. Glycosuria does not interfere, but the sugar has first to be removed by fermentation. In this article he does not describe the reaction, but it is given later by Cammidge. Alimentary glycosuria occurring from a partially disordered affection of the pancreas is of some value in the diagnosis and Sahli's symptom of giving iodoform in a capsule hardened by formalin and testing the urine for iodin is also mentioned, and some remarks are made in regard to fat necrosis and hemorrhage. As regards the former, he thinks his cases disprove the statement that it is necessarily of fatal significance. Hemorrhage may be due to vascular disease, injury, fatty degeneration of the gland cells in alcoholism, necrosis in the glands, disintegration of neoplasms, embolism of a pancreatic artery and other causes such as heart and lung disease, hepatic cirrhosis, hemorrhagic diathesis, scurvy, phosphorus poisoning, etc. Pancreatitis may undoubtedly lead to hemorrhage and the symptoms may vary from colic to violent and persistent pain followed by collapse and death. The site of the pain may be precordial or dorsal, but it is usually epigastric. The diagnosis may be obscured at first, but with the onset of pancreatitis some of the symptoms mentioned will be present and the pancreatic reaction in the urine will offer a valuable help. In all the stages the treatment is that of acute pancreatitis.

10. Pancreatic Reaction.—In this lecture Cammidge gives the pancreatic reaction mentioned above by Robson. He describes the procedure in which he calls reaction "A" as follows:

> The specimen of urine to be examined is filtered, and 10 c.c. of the filtrate are poured into a small flask. One cubic centimeter of strong hydrochloric acid is added and a funnel having been placed in the neck to act as a condenser the flask is placed on a sand bath and gently boiled for ten minutes after the first sign of ebullition is detected. A mixture of 5 c.c. of the filtered urine and 5 c.c. of distilled water is then poured into the flask, which is afterwards cooled in running water. The excess of acid is now neutralized by slowly adding 4 grams of lead carbonate and, after standing for a few minutes to allow of the completion of the reaction, the urine is filtered through a moistened filter paper and the flask is washed out with 5 c.c. of distilled water on to the filter. To the clear filtrate are now added 2 grams of powdered sodium acetate and 0.75 gram of phenylhydrazin hydrochlorate and the mixture is boiled for from three to four minutes on the sand bath. The hot fluid is then poured into a test tube and allowed to cool undisturbed. After the lapse of a period, varying with the

severity of the case from one to 24 hours, a more or less abundant flocculent yellow deposit is found at the bottom of the tube, and this when examined under the microscope with a 1/6-inch objective is seen to consist of sheaves and rosettes of golden yellow crystals. As the presence of sugar in the urine would obviously vitiate the results thus obtained it is necessary before proceeding to the test to make sure that the untreated urine does not give a reaction wih phenylhydrazin. This may roughly be done with Fehling's solution, or some similar test, but it is better to carry out a control experiment with phenylhydrazin hydrochlorate and sodium acetate in the manner I have just described, omitting the preliminary boiling with hydrochloric acid. Should the control experiment reveal even a trace of sugar it must be removed by fermentation, with subsequent boiling to expel the alcohol formed, before the investigation is proceeded with. The presence of albumin in the urine is also liable to cause trouble, and it is best got rid of either by treatment with ammonium sulphate or by acidifying with acetic acid, heating and filtering. The results obtained by this method were found not to be absolutely trustworthy, although a useful aid in diagnosis, since a positive reaction was also obtained in patients suffering from certain other diseases where active tissue change was taking place, such as cancer, adenitis, pneumonia, etc. For a long time the positive reaction given by these non-pancreatic cases diminished the practical usefulness of the test, but eventually a means by which the cases of pancreatitis might be distinguished was devised, and we now believe that by combining the results of the two, it is possible in the large majority of cases to make a trustworthy diagnosis from the examination of the urine alone. The differentiating test depends on the fact that the formation of the crystals described in reaction "A" is interfered with in inflammation of the pancreas by a preliminary treatment of the urine with perchlorid of mercury, while such treatment does not affect the appearance of crystals in cases of cancer of the pancreas and the other conditions which give rise to a positive reaction. The procedure, which I shall refer to as the "B" reaction, is as follows: Twenty c.c. of the filtered urine are thoroughly mixed with half its bulk of a saturated solution of perchlorid of mercury. After standing for a few minutes it is carefully filtered and to 10 c.c. of the filtrate 1 c.c. of strong hydrochloric acid is added. The mixture is then boiled for ten minutes on a sand bath and subsequently diluted with 5 c.c. of the filtrate from the mixed urine and perchlorid of mercury solution and 10 c.c. of distilled water. After cooling it is neutralized with 4 grams of lead carbonate and the succeeding stages of the operation are carried out as in reaction "A."

Experiments were then set on foot to still further differentiate the forms of disease, and a careful observation of the crystals isolated from the urines of various types of pancreatic disease showed that while there is a general resemblance, certain variations occurred and the differing rate of solubility of crystals in dilute sulphuric acid was remarked and found to be of still greater value. If the crystals obtained in reaction "A" are observed under the microscope while a 1 in 3 dilution of sulphuric acid is being irrigated under the cover glass, they will be seen to turn brown when the acid reaches them and dissolve. In acute pancreatitis the interval that elapses between the first appearance of the brown color and complete solution varies from a few seconds to half or three-quarters of a minute. In chronic pancreatitis it extends from half to one and a half or rarely to two minutes, while in malignant disease the crystals do not completely disappear until three to six minutes. The practical results of the examination of the urine he summarizes as follows:

1. If no crystals are found by either the "A" or "B" method the pancreas is not at fault and some other explanation of the symptoms ought to be sought. 2. If crystals are obtained by the "A" method, but not by the "B" reaction, active inflammation of the pancreas is present and surgical interference is generally indicated. (*a*) The crystals obtained by the "A" method will in acute inflammation dissolve in 33 per cent. sulphuric acid in about half a minute. (*b*) In chronic inflammation the crystals obtained by the "A" method will take one or two minutes to disappear. 3. If crystals are found in preparations made by both the "A" and the "B" methods there may be (*a*) malignant disease of the pancreas, when the crystals will, as a rule, take from three to five minutes to dissolve and operation is inadvisable; (*b*) a damaged pancreas due to past pancreatitis, when the crystals will dissolve in from one to two minutes; (*c*) some disease not connected with the pancreas, when the crystals dissolve in about one minute. In the two latter (*b*) and (*c*), the urgency of the symptoms and the condition of the patient must decide the need for an exploratory incision, but there is generally not much difficulty in referring the case to one or other of the groups when the clinical history is considered in conjunction with the result of the examination of the urine.

The microscopic examination of centrifugalized deposit of the urine is also of some use, and he describes the different forms of deposits that are observed, and in the conclusion of his lecture mentions the different observations in the reaction and the dissolving of crystals in more detail.

Annales de l'Institut Pasteur, Paris.

Last indexed page 862.

14 (XVII, No. 11.) *Report of the French Yellow Fever Medical Commission. Marchaux, Salimbeni and Simond.—La fièvre jaune.
15 Etudes sur la clavelée (sheep pox). A. Borrel. Serum treatment.
16 Formation des gites à larves d'anophèles en Algérie. E. Sergent.
17 L'alcool et ses droits naturels. E. Duclaux.
18 (No. 12.) Recherches sur la coagulation du sang (of blood). J. Bordet and O. Gengou (Brussels). See also vol. xviii, No. 1.
19 Le passage du virus rabique à travers les filtres. Remlinger (Constantinople).
20 Anaérobies et symbiose. Bienstock.
21 Etudes d'hydrographie souterraine. E. Duclaux. (Commenced in No. 8.)
22 (XVIII, No. 1.) Etudes expérimentales sur la syphilis. El. Metchnikoff and Em. Roux. (Commenced in No. 12.)
23 *X-Ray Treatment of Alopecia Areata. R. Sabouraud.—Les teignes cryptogamiques et les rayons X.
24 *De la valeur thérapeutique des injections der sérum dans la diphthérie suivant les doses et la voie de pénétration. L. Cruveilhier.

14. Report of the French Yellow Fever Commission.—This commission was sent to Brazil by the French government in 1901 and remained there for two years, studying yellow fever with every facility afforded by the Brazilian authorities. Among the conclusions announced as the results of this research is one to the effect that the serum of a yellow fever subject is virulent for three days, but by the fourth day there is no longer any virus to be found in it, even when the fever still persists high. Also that the virus applied to an abrasion of the skin made by scraping off the epidermis is unable to induce the disease, but subcutaneous injection of .5 c.c. imparts it. The virus in the blood serum of a yellow fever patient traverses the F bougie of a Chamberland filter without dilution, but not the B bougie. Virulent serum exposed to the air at a temperature of 24 to 30 C. becomes inactive by the end of forty-eight hours. In defibrinated blood kept under oil of vaselin at this temperature the microbe of yellow fever is still alive after five days, but does not survive to the eighth day. Virulent serum becomes harmless when heated. Preventive injection of this heated serum confers relative immunity, which may be rendered permanent by supplementing it with inoculation of a small amount of virus. Injection of defibrinated blood kept in the laboratory under oil of vaselin for at least eight days confers relative immunity. The serum of convalescents is endowed with unmistakable preventive properties, and seems to possess also therapeutic properties. The immunity conferred by serum from convalescents is still active by the twenty-sixth day. The *Stegomyia fasciata*, after sucking the blood of a yellow fever patient during the first three days of the disease, is not able to transmit the disease until after an interval of twelve days at least. The resulting infection seems to be graver the longer the interval that elapses. The mosquito bite does not always cause the disease, and does not confer immunity. Aside from the bite of this variety of mosquito the disease can be transmitted only by subcutaneous injection of blood taken from a yellow fever subject during the first three days of the disease. There can be no epidemic in the absence of the *Stegomyia*. The period of incubation may last for thirteen days. The causal agent of yellow fever still eludes research.

23. Treatment of Parasitic Alopecia by the X-Rays.—Sabouraud gives an illustrated description of the apparatus with which he has succeeded in curing tinea tonsurans in three months instead of the usual eighteen months' course necessary with other methods of treatment. This means an immense saving to the city of Paris, he remarks, as there are about 4,000 endemic cases of tinea and 650 are in the hospitals on account of this affection. The expense of treating them amounts annually to $90,000. This expense will be much lessened by reducing the length of treatment to one-sixth of the former time. He describes the few failures to the overlooking of some patch not discovered until later, or to reinoculation during treatment. In his extensive experience these failures have not amounted to more than 5 or 10 per cent. All the other patients have been permanently cured.

24. Diphtheria Antitoxin Treament by Various Routes.—Cruveilhier's experiments were all made on guinea-pigs under similar conditions. They demonstrated that in diphtheria, as in tetanus, after a certain period has elapsed, antitoxin is powerless, however introduced into the system. A single subcutaneous injection of .1 c.c. ten hours after inoculation of the animal with the diphtheria culture saved its life. Injection of 1 c.c. lengthened the safe period by two hours, as also injection of the smaller amount directly into the brain. In a few instances the period of safety was prolonged to fourteen hours. Intravenous injection proved the most effectual of all. The period of safety was prolonged in every instance to sixteen hours. The intravenous route, therefore, is the best for diphtheria antitoxin. It proved effective in these tests six hours after a subcutaneous injection had lost all efficacy.

Archives de Neurologie, Paris.

Last indexed XLI, page 212.

25 (XXV, July.) Idiotie profonde avec nanisme et infantilisme. Amélioration considérable. Bourneville.
26 (August.) Final History of a Myxedematous Idiot. Bourneville.—Fin de l'histoire d'un idiot myxedemateux.
27 Eye Lesions in General Paralysis. P. Keraval and G. Raviart. —Etude de l'état du fond de l'oeil chez les paralytiques généraux. Atrophie papillaire et décollement de la rétine.
28 (September.) Obsession et délire. E. Marandon de Montyel (Ville-Evrard).
29 Etude des manifestations individuelles des peurs obsédantes dans la constitution idéo-obsessive. S. Soukhanoff (Moscow).
30 Délire et petit brightisme. A. Vigouroux and P. Juquelier. (Concluded.)
31 (October.) Soin donné aux épileptiques et leur traitement en Angleterre. Fletcher Beach (London).
32 Detailed Report of French Congress of Neurologists and Alienists, Brussels, Aug. 1 to 8, 1903. (Concluded.)
33 (November.) Cas de guérison complète de cécité (hémianopsie). S. Tchiriev (Kiev).
34 Installation d'un pavillon d'isolement des aliénés tuberculeux à l'asile d'Armentières. E. Chardon and G. Raviart.
35 *Etude de la catatonie (Catatonie et démence précoce?). A. Paris (Nancy).
36 *Frequence et évolution des lesions du fond de l'oeil dans la paralysie générale. G. Raviart and P. Caudron.
37 (December.) Hemisection traumatique de la moelle (syndrome de Brown-Sequard). Peugniez and C. Philippe.
38 Etude clinique des monologues chez les aliénés. Darcanne (Paris).
39 *Maladies unilatérales de l'oreille avec des hallucinations de l'ouie (cas de guérison simultanée d'otite externe unilatérale et d'hallucinations auditives homolatérales). J. Capgras.

35. **Catatonia.**—Several cases of this condition are described by Paris, who prefers for it the denomination "degenerative catatonic psychosis." He suggests that it should be considered as a syndrome of dementia precox, or as qualifying as "precocious" the dementia which follows the syndrome.

36. **Eye Lesions in Paresis.**—Raviart and Caudron publish the results of examination of some 44 paretics. They find numerous fundal lesions ranging from papillary atrophy through all the stages to the normal. It is most frequently unilateral. Only 6 patients had a normal fundus. The visual acuity, which was difficult to estimate, appeared very little diminished in most of the cases. About 80 per cent. of the cases had a history of alcoholism and 20 per cent. of syphilis.

39. **Unilateral Hallucinations in Ear Disease.**—Capgras reports a case and discusses it. He recognizes five different types of the relations of hallucinations of hearing with unilateral ear disease. The predisposition of the subject has much to do with the development. One type is that of a delusive but not hallucinative tendency, which puts on a delusive interpretation of the functional symptoms of the lesion which we should avoid mistaking for hallucination. The second type occurs where the unilateral lesion simply coexists with the hallucination; they are independent and have no characteristics indicating any relationship. In the third type the unilateral lesion may affect the sensorial element only, without any intellectual element. In this case, notwithstanding the unilateral lesion, the hallucination is bilateral, but it disappears with the cause which produces it. In the fourth class the unilateral lesion has no sensorial factor. It is not the provocative agent of the hallucination, but through the intellectual element, the unilateral type is produced. This character disappears only with the cure of the lesion and the hallucination becomes bilateral. Lastly, we have a type where the unilateral lesion plays a double part, uniting, so to speak, the two categories. It acts on the sensorial element and on the intellectual element. The first action causes the appearance of hallucinations and the second explains their unilaterality. The evolution of the lesion and that of the hallucination are parallel and their cure is simultaneous.

Bulletin de l'Académie de Médecine, Paris.

40 (LXVIII, No. 8.) L'indoxyle urinaire et les couleurs qui en dérivent. L. C. Maillard.
41 Bouchardat's Reagent in Urology. Chibret and others.—Urologie.
42 (No. 9.) *Therapeutic Applications of Sea Climate. A. Robin.—Des effets du climat marin et des bains de mer sur les phénomènes intimes de la nutrition.
43 *De la ponction lombaire dans les complications endo-craniennes des otites. Chavasse and Mahu.
44 Maladies épidémiques et contagieuses qui ont régné dans les colonies françaises en 1902. Kermorgant. Discussion in following number by Laveran and others.
45 *Note clinique sur un syndrome pelvi-abdominale chez la femme. F. de Ranse.
46 (No. 10.) *The Thenelles "Sleeper." Lancereaux.—La dormeuse de Thenelles. Un sommeil pathologique de 20 années consécutives.

42. **Therapeutic Application of Sea Climate.**—Robin formulates his views in regard to prescribing the sea climate in the statement that it is indicated when the vital processes are sluggish, but is distinctly contraindicated when there is excessively active metabolism. This excludes subjects with pulmonary tuberculosis as they are usually in the latter category. The stimulation of the sea air is particularly beneficial for anemic subjects with sluggish vital processes, for lymphatic, scrofulous and certain neurasthenic subjects with enfeebled nutrition. A small proportion of the tuberculous, about 8 per cent., exhibit normal or torpid organic interchanges, and this small class may find the sea climate beneficial. It may also aid consumptives who eat, digest and assimilate poorly notwithstanding excessive assimilation and disassimilation. Brief sojourn at the seashore may benefit such cases as also those in which the general health is still good and the lung lesions are healing. Such patients should be sent to a mild, equable climate and instructed to avoid winds and the cool of evening as also too brilliant sunlight, and to keep back from the immediate coast. The general and respiratory interchanges should be carefully examined from time to time and the patients sent away from the seashore if the findings become unfavorable. Tuberculosis of the bones and glands derives remarkable benefit from the sea air. Robin's work establishes the action of sea air and bathing on the organic interchanges, and thus confirms what has been learned by clinical experience.

43. **Lumbar Puncture in Otitis.**—Chavasse emphasizes the importance of the information to be learned by lumbar puncture in regard to endocranial complications of an otitis. When the cerebrospinal fluid is turbid or contains bacteria or polynuclear leucocytes or both, a bacterial meningitis is probable. An abundance of mononuclear lymphocytes in a clear or slightly turbid fluid speaks for tubercular meningitis. Lymphocytosis is also observed in other chronic meningeal processes and during retrogression of acute meningitis. In case of extradural and subdural suppurations the fluid retains its normal composition as long as the arachnoid sac is exempt. In case of a brain abscess, in thrombophlebitis of the lateral sinus and in non-bacterial meningitis the fluid is limpid and normal, but frequently under high pressure and more abundant than normal. Red corpuscles are liable to be found in the fluid after trauma of the basis or labyrinth, accompanied by symptoms on the part of the ear. Lumbar puncture should be combined with surgical intervention in otitic meningitis.

45. **Pelvi-Abdominal Syndrome in the Female.**—De Ranse describes a syndrome which includes pains, neuralgias, hyperesthesia, spasms, vasomotor disturbances, congestions, ptoses, functional troubles, etc. The syndrome involves the three systems, the genital, digestive and urinary, and treatment directed against any one of the triad is necessarily ineffectual as all three apparatus are involved owing to the direct nerve communication between them. The syndrome includes the "uterine syndrome" of the gynecologists, as well as dyspepsia, gastro-enteroptosis, hemorrhoids and symptoms in the urinary system. The system of plexuses in the abdomen controls the actions and reactions in the pelvi-abdominal organs and explains the pathologic connection between them. Hysteria and neurasthenia are frequently the primal cause of the syndrome which might aptly be called the pelvi-abdominal neuropathy. Treatment should aim to palliate the disturbances in the innervation and circulation of the parts and cure the general condition or diathesis in which they originate and which serves to maintain them. This double aim is realized by physical measures, fresh air, cold water, mineral waters,

heat, electricity, gymnastics and massage By its general and local action kinesitherapy responds to the numerous indications in these cases and merits greater attention on the part of practitioners Associated with balneotherapy it affords the most rational and effectual mode of treatment for this pelvi abdominal neuropathy, which persists unmodified after treatment of one of its factors if the others are neglected

46. The Thenelles "Sleeper."—THE JOURNAL mentioned last June the death of Marguerite B of Thenelles, France, who had passed twenty years in a pathologic sleep In May, 1883, after a severe fright, she fell asleep and did not rouse until in May, 1903, when symptoms of progressing tuberculosis seem to have recalled her to life for a few days, after which she succumbed to her tuberculosis Her father was alcoholic, her mother and sisters neurotic The various features of her long sleep confirm Charcot's dictum that the sleep of lethargy is only a modified hystero epileptic attack. When she roused she spoke the dialect of her childhood, but there were no signs of impairment of the nerve centers nor of the peripheral nerves and she took nourishment normally During her trance she had been fed by the rectum Her lethargic sleep had been accompanied every four or six weeks by sudden convulsions, each terminating by copious salivation or by a profound sweat Her unconsciousness was never relieved and no signs of intelligence were apparent during the twenty years of her sleep A small hysterogenic zone was found at the upper part of the sternum, the slightest touch to this region elicited convulsions Otherwise there was general anesthesia The case is reported by Dr F. Charlier of Origny Sainte Benoite (Aisne), and Lancereaux reviews a number of other cases resembling it to a certain extent, although in none on record did the trance last so long. There is no danger of any one's being buried alive in a trance as the temperature alone is sufficient to show the difference between the condition and death, even without the absence of signs of putrefaction The hysteric trance has never proved fatal in itself, but the lethargic sleep connected with melancholia entails a much graver prognosis as, for instance, in Semelaigne's case, in which after fifteen months of the trance the subject's face suddenly became congested, the respiration and pulse more and more hurried, and death replaced the pathologic sleep without the intervention of a gleam of consciousness Hypnotism, electricity and other agents have proved powerless against these trances, but if, as has been suggested, they are due to ischemia of the brain, remedies against this should certainly be tried As a rule, however, hysterics are best treated by being left alone Instead of making a great ado over their seizures he advises the family to leave them entirely alone and quit the room, and has never had a second attack occur among patients thus treated Raymond remarked in the discussion that he frequently had occasion to see subjects in such trances Every month on an average one is picked up in the streets and brought into his service He rouses them by moving the limbs, with other mechanical measures to arouse the benumbed psychic centers

Beitrage zur klin. Chirurgie, Tubingen.

Last indexed page 341

47 (XLI, Nos 1 2) *Thyroid Tumors Inside the Trachea and Larynx and Their Removal von Bruns—Ueber Kropfgeschwulste im Innern des Kehlkopfs und der Luftrohre und ihre Entfernung
48 Beitrag zur traumatischen Gangran durch Ruptur der inneren Arterien Haute M v Brunn
49 *Fatal Hemorrhages After Tracheotomy M Taute—Todliche Blutungen im Gefolge der Tracheotomie
50 Resection of Deflected Nasal Septum B Honsell—Zur Resektion der verbogenen Nasenscheidewand
51 *Cyst like Dilatation of the Ureter in Bladder T Cohn—Ueber cystenartige Erweiterung des Harnleiters innerhalb der Harnblase
52 Experimental Ligation of Intestines A v Genersich—Ueber Unterbindung des Darms
53 *Beitrag zur operativen Behandlung des Mastdarm Prolapses (of rectum) Becker
54 Remote Clinical Results Kronlein—Klinische Nachtrage
55 Zur Kasuistik der Milz Cysten (of spleen) E Monnier
56 Grenz Divertikel des Oesophagus H Brun
57 Exstirpation eines Dermoids des Mediastinum anticum O W Madelung

47. Intratracheal Thyroid Tumors—The diagnosis of a tumor of this nature is probable when an otherwise healthy person between 15 and 40 years old exhibits symptoms of dyspnea and a flat, subglottic, smooth tumor of the rear or side wall of the trachea is discovered In very young subjects thyroid treatment might induce the retrogression of the tumor, but in older persons laryngotracheotomy is necessary in case the symptoms compel intervention This was done in the 5 cases reported by von Bruns, 4 of which he has previously published With the 6 he has been able to find in the literature there is now a total of 11 cases on record, with an additional case of malignant intratracheal struma on which he had occasion to operate All who have had anything to do with these tumors emphasize the importance of refraining from attacking them by the endolaryngeal or endotracheal route on account of the inflammatory swelling and suppuration liable to follow.

49 Fatal Hemorrhages After Tracheotomy—Taute adds 3 to the 82 cases of fatal hemorrhage after tracheotomy on record Arrosion of the anonyma is the most frequent cause, occurring in 65 per cent, while arrosion of the common carotid occurred in merely 4 7 per cent The veins are involved much less frequently than an artery On the whole, about 2 5 per cent of all cases of tracheotomy succumb in time to arrosion of some vessel Treatment is mainly prophylactic, watching against decubitus from the canula, noting blood in the sputa and localized pain In one of the cases described a threatening hemorrhage from the thyroid vein was effectually controlled, but usually such an occurrence is rapidly fatal. Children were the subjects in all but 10.6 per cent of the total cases of fatal hemorrhage

51 Cystic Dilatation of Ureter Within Bladder.—A young man had suffered for years from symptoms of chronic cystitis with retention of urine at times The trouble was discovered to be a cyst like enlargement of the ureter, projecting into the bladder. All disturbances ceased permanently after extirpation of the tumor

53 Operative Treatment of Prolapse of Rectum—Becker has treated 7 children and 4 adults by the technic which he describes and recommends as eminently fitted for the desired purpose After several days of purging, followed by rinsing out the rectum with hydrogen dioxid, he draws out the prolapsed portion and detaches the mucosa as a separate cylinder, which is removed, while the rest of the prolapsing wall is drawn up into folds by a number of stitches woven in and out, and it is pushed back inside the tissues He works through a circular incision around the anus, leaving the latter intact, as shown in the illustrations

Deutsche medicinische Wochenschrift, Berlin and Leipsic

58 (XXX No 11) *Unsere Erfahrungen mit "Dyspeptine" Hepp F Loeb
59 *Ueber spastische Pylorus Stenose und intermittierende Ektasie G Korn (Concluded from No 10)
60 Ear Affection Due to Therapeutic Use of Arsenic, in Another Case to Salipyrin Schabach—Nebenwirkungen einiger Arzneimittel auf das Ohr.
61 Importance of Fat in Pathology of Knee A Hoffa—Zur Bedeutung des Fettgewebes fur die Pathologie des Kniegelenks (Commenced in No 10)
62 Treatment of Fracture of Lower Jaw Kersting (Aix la Chapelle)—Behandlung von Unterkieferbruchen
63 Die Akademien fur praktische Medizin O Witzel (Bonn)
64 Das Spezialistentum in der arztlichen Praxis W Ebstein (Gottingen)
65 Zur Thiosinamin Behandlung narbiger Pylorus Stenose H Strauss (Berlin)
66 The Schmidt Treatment of Cancer Walzer (Cologne)—Spezifische Behandlung des Krebses nach Otto Schmidt (Coln) Reply by P zum Busch (London)
67 (No 12) Gibt es ein biologisches Differenzierungs Verfahren fur Menschen und Tierblut mittels der Prazipitine? A Wassermann (Berlin)
68 *Zur Diagnose der hochsitzenden Mastdarm und Flexur Karzinome mittelst Palpation und Endoskopie T Rosenheim (Commenced in No 11)
69 Blood Measurements in Arteriosclerosis K Sawada—Blutdruckmessungen bei A
70 *Nervose und kardiale Arhythmie E Rehfisch (Commenced in No. 11)
71 Treatment of Bone and Joint Tuberculosis Review of late literature F Pels Leusden (Concluded)
72 *Active Immunization Against Tuberculosis A Moeller—Zur Frage der aktiven Immunisierung gegen Tuberkulose Reply by F F Friedmann

58 Experiences with Natural Gastric Juice from the Pig.—Loeb reports from Ewald's clinic that the hopes cherished in regard to this new stomachicum were only imperfectly realized.

59. **Spastic Stenosis of Pylorus and Intermittent Ectasia.**—This communication issues from Boas' clinic, and is an exhaustive monograph on the subject and its literature. The diagnosis of spastic stenosis is of course by exclusion, and time will usually aid in establishing it. The prognosis of single attacks is good, although they leave a predisposition to repetitions, and when they occur often the pylorus is liable to become hypertrophied and the accumulation of connective tissue to entail secondary organic stenosis. The attacks generally respond readily to treatment. Korn has never observed but a single case which proved refractory and led to loss of weight, etc. He ascribes the spastic contraction to some underlying ulcerative or inflammatory process, and hence treats it as if it were an actual ulcer, guarding against recurrences with the same care as for the latter. Boas and others do not counsel surgical intervention for spastic stenosis alone unless it recurs so frequently as to cause much disturbance. Gastroenterostomy is the usual choice, but Neumann has recently warned that on account of the hyperacidity which is seldom lacking in these cases, jejunostomy may be preferable.

68. **Early Diagnosis of High Cancer in Rectum.**—Rosenheim insists that it is sometimes possible to diagnose malignant disease high in the rectum or flexure by palpation and endoscopy even in the earliest stages. In a case personally observed a rather nervous man, 42 years of age, noticed that defecation required more effort than formerly and that the feces occasionally showed traces of blood. Otherwise no symptoms could be discovered, spontaneous or elicited. Rosenheim examined him early one morning after the intestines had been thoroughly evacuated. He was able to introduce without difficulty a tube rectoscope 25 cm. long by 2 cm. in diameter—the subject in the knee-chest position. At the entrance of the sigmoid flexure the passage of the tube was obstructed by a fold of mucosa which was easily pushed aside, but behind it was a sausage-like roll projecting into the lumen from the lower left corner. This roll looked very red and the surface was drawn taut and was not modified by contact with the tube. As he was inspecting it flatus passed and a few drops of blood trickled from above the roll. He at once advised removal of the growth, which he assumed to be a carcinoma at the entrance. The surgeon to whom he sent the patient attributed the troubles to nervousness, as palpation under chloroform failed to confirm the presence of a tumor. Two other physicians consulted took the same view, although the patient's general health showed impairment during the following months. He finally drifted into the hands of a nature doctor for a month, but finally, one year after Rosenheim's first diagnosis, Israel was able to palpate a tumor and removed it with 15 c. of the intestine. The cancer by this time was the size of a small apple and was surrounded by smaller nodules. Rosenheim ascribes great diagnostic importance to the trickling of blood from above the tumor, which he has found is almost pathognomonic for cancer in the esophagus. Obstruction to the passage of the tube is also a grave sign, as ordinary infiltration yields to pressure and allows the tube to pass. In case of spastic contraction quiet waiting for a time will usually witness its subsidence and allow the passage of the tube. A permanent obstacle speaks for malignancy as also the circumscribed lesion. Visual inspection of the rectum and flexure is the only reliable means of discovering these growths in their incipiency as they then escape palpation, even when the examiner is gifted with unusually long fingers. He mentions the scant attention paid to the technic of bimanual palpation in the latest text-books, "not excepting Tuttle's great special treatise," and warns against trusting too implicitly to the findings of palpation, citing several instructive cases. He describes his own technic in detail and commends it as the most comprehensive of which he knows. The subject lies on a flat table, first in the Sims position, then on his back, and then in the high stone position, and the examiner explores the rectum with his forefinger, while with the other hand he presses the parts against the finger. It requires great skill to palpate a tumor above the third sacral vertebra. In the earliest stages the cancer may be too soft to give definite findings on palpation. In conclusion Rosenheim cites another case to illustrate the great advantages of endoscopy. He noted in this case papillary excrescences near the flexure. They were not much larger than hemp seeds, but bled at the slightest touch and the mucus taken from between them gave the reaction for blood pigment. The poor general condition suggested malignancy and a few weeks later numerous metastases were discovered. None of the symptoms in this case suggested the sigmoid flexure as the seat of the trouble except the direct visual inspection. He regrets that Tuttle did not give the particulars of the visual findings in the 5 cases he reports in which the diagnosis was based on endoscopy after failure of palpation. He urges the importance of publishing the exact findings in these cases to establish a composite picture of high cancer in the rectum. Sometimes the aspect is unmistakable, as in Ewald's 2 cases, in which the red, knobby, easily bleeding tumor masses forbade all doubt. Exploratory excision is not of much value in case of growths in the rectum as benign tumors so readily become malignant in this locality. One great value of endoscopy is in the relief afforded by negative findings. If the tube can be introduced for 35 cm. without hindrance and the mucosa appears sound throughout, then cancer in this part of the intestine may be safely excluded and attention directed to the parts which are more readily accessible to palpation, especially with the pelvis elevated.

70. **Nervous and Cardial Arrhythmia.**—Rehfisch presents a number of curves and arguments to illustrate his contention that arrhythmia of nervous origin may be differentiated from cardial arrhythmia by the lack of great differences between two neighboring pulses. He uses the word "differenz" to express the length of time required for the single phases of the pulse wave, in comparison with its sister waves. In 100 healthy working people examined at rest only 4 presented an absolutely regular pulse in this respect. The difference in 97 per cent. did not amount to more than 20 per cent. He calculates the percentage as, for instance, with 75 beats to the minute, each pulse lasts 16/20 of a second, but if two pulse waves require 19/20 of a second, this brings the difference to 18.75 per cent. In health he never found this difference to surpass 31 per cent., and in functional nervous disease it never surpassed 36 per cent. In cases of organic heart disease it reached 120 per cent. in some instances. He classifies a neurasthenic with a sound heart by having him step up on a chair several times in succession, noting the differences before and after. In merely nervous subjects the difference of two neighboring pulse waves does not surpass 40 per cent. Direct irritation of the vagus, as in meningitis, or by reflex action, as in appendicitis, does not induce any higher values in this difference percentage. Experimental research and clinical experience demonstrate that the extrasystole represents a relatively weak heart action while the decided arrhythmia in nervous subjects is generally, although not always, produced by extrasystoles. For all these reasons we can assume that cardial arrhythmia is distinguished from the nervous variety by its high difference values. We can further accept that when high difference values are accompanied by marked irregularities in the pulse there is usually some organic basis to be found for them in the heart.

72. **Successful Active Immunization Against Tuberculosis.**—[Moeller is director of the great Belzig sanatorium, and his work on the relation of the acid-fast bacilli to true tubercle bacilli received editorial comment in The Journal of March 5, 1904. He thinks the relation is similar to that between cowpox and smallpox. He found that by inoculating animals with some members of the group of acid-fast bacilli, in a certain sequence, it was possible to confer immunity against the later members of the series, and against true tubercle bacilli. The question was then to select one member of the group to use on man to render him similarly immune. He selected for this purpose the bacillus of blindworm tuberculosis as it is effective while it does not cause progressive lesions. The blindworm bacillus dies at a temperature of 25 C. He pro-

ceeded to inoculate himself and another subject with blindworm tuberculosis, commencing in March, 1902, and after repeating the inoculation once subcutaneously and three times into a vein, in December he made an intravenous injection of 1/50 of a loop of human tubercle bacilli. His general health and temperature were unaffected, but he lost about 15 pounds in weight during the following three months, but regained his normal weight in April. Two guinea-pigs were injected on the same date with the same amount of the same human stem culture One died in thirteen days with symptoms of pneumonia; the other was killed in eighteen days and a tuberculous infiltration was found at the point of injection and several nodules in the peritoneum. Moeller's general health has not suffered during the long interval since and he is still actively prosecuting this research, since publishing his report in the *Zeitschrift f. Tuberkulose*, v. 3, 1904. He is confident that in the blindworm cultures we have a means for successful vaccination against tuberculosis, on the same principle as cow pox vaccination against smallpox.—Ed.] In the present communication he replies to Friedmann's article, which was summarized in these columns on page 623

Deutsche Zeitschrift f. Chirurgie, Leipsic.

Last indexed page 744

73 (LXXI, 3 4) *Zur Kenntnis der Wirkung der Nebennieren praparate (suprarenal extract) R Klapp
74 Ueber Spiral Bruche an der oberen Extremitat (fractures of arm) J Bayer.
75 Zur Pathologie und Therapie der Luxatio coxæ congenita K Vogel
76 *Beitrage zur operativen Behandlung der Tuberkulose des Ellenbogengelenks (of elbow) N Damianos
77 Eine eigenartige bindegewebige Neubildung der Hohlhand (connective tissue, new growth in palm) H Kuster.
78 Ueber operativ behandelte Falle von Perforation der steinhaltigen Gallblase in die freie Bauchhoble (perforation of gall bladder) Neck (Reichel's service, Chemnitz)
79 *Kasuistische Beitrage zur Pathologie und Therapie des Volvulus des Coecum R [illegible]
80 *Ueber die Bedeutung [illegible] n der Behandlung der seitlichen [illegible] besonders der habituellen Skoliose [illegible]
81 *Ueber die Regeneration der unterbundenen Saphena G Ledderhose (Strasburg)

73 **Inhibition of Absorption by Adrenalin.**—Klapp injected dogs with milk sugar and then determined the proportion that had been absorbed, comparing them with dogs injected at the same time with the same amount of milk sugar plus adrenalin He found that even a single drop of the 1 1,000 solution had a decided effect in preventing absorption He thinks that all measures which induce anemia have an inhibiting effect on absorption. He gives the particulars of 21 tests, with a number of curves showing the quantitative absorption

76 **Operative Treatment of Tuberculosis of the Elbow.**—Damianos publishes the results obtained at Mosetig's clinic in operations on the elbow on account of tuberculosis Between 1892 and 1895 resection was done in 28 cases, with one death from pyemia Eighteen had been completely cured out of 19 examined in 1895. From 1896 to 1901, 32 cases have been operated on, with no mortality Out of 20 patients since examined 10 are completely cured with good function. Six have died and 4 required an insignificant after operation The technic includes a Bruns incision, sawing open of the olecranon, suturing it together again afterward He appends comparative tables of similar operations in various German clinics

79 **Volvulus of the Cecum.**—Faltin reports 2 new cases of volvulus of the cecum and 3 operated on by other Finnish physicians This makes a total of 35 cases of volvulus of the cecum published in Finland Most of the patients were less than 40 years old. The clinical picture includes the sudden onset, the vomiting, colic, obstipation, oblique or horizontal local meteorism. absence of peristalsis, moderate tenderness, comparatively chronic course, and late fecal vomiting. The patients usually assume a characteristic attitude. Out of 59 cases treated by reduction of the volvulus 28 have been cured, while only 3 recovered out of 9 in which resection of the gangrenous cecum was necessary. He remarks that on the whole we may ascribe a favorable prognosis to volvulus of the cecum.

80. **The Etappen Cast for Scoliosis.**—Marcuse has been much pleased with the plaster casts applied "by stages" to cure lateral curvature of the spine, especially habitual scoliosis. The results are most excellent if the patients are willing to persevere in the necessary after-treatment.

81. **Regeneration of Ligated Saphena.**—Ledderhose found in 2 specimens obtained at a secondary operation that the ligated and severed saphena in the thigh had become permeable again for the blood stream in time.

Münchener medicinische Wochenschrift, Munich.

82 (LI, No 10) *Paralyses of Pregnancy. R von Hosslin—Ueber zentrale Schwangerschaftslähmungen der Mutter
83 *Early Narcosis C Homann—Fruhnarkose
84 *Zur Aether Tropf-Narkose. E Barten.
85 *Ueber Bier'sche Stauung (passive congestion). Luxembourg
86 Das Mucin der Milzbrand Bazillen (of anthrax bacilli) L Heim.
87 *Zur Diagnostik der Pulmonal Insuffizienz E Fromherz
88 *Fall von totaler Rhinoplastik aus dem Arm Habs
89 Fall von Leber-Abszess und diffuser Cholangitis mit zahlreiche [illegible]rfache chirurgische Eingriffe [illegible].
90 Restorat[illegible] and Tendon Flap from the Tibia Dumstrey—Neubildung der Patella, etc
91 *Anwendung der Lumbal-Punktion bei Uramie Seiffert
92 Behandlung des Morbus Basedowii mit Rodagen W. Kuhnemann
93 *Vorrichtung zum Wecken des Pflege Personals T Budingen (Constance)
94 *Treatment of Hydrophobia S I Georgescu (Bucharest) From society report
95 *Preservation of Raw Meat A Babes Ibid

82. **Central Paralyses After Pregnancy.**—Hösslin reviews the symptomatology, prognosis and treatment of the various forms of central paralysis accompanying or following pregnancy and due to hysteria, myasthenia gravis, apoplexy, thrombosis, embolism or albuminuria, and he also reviews the relations of spinal affections to pregnancy. Delivery does not seem to be affected by spinal paralysis and conception and pregnancy proceed normally. In spinal affections delivery seems to be easier and quicker than in physiologic conditions In conclusion he urges physicians to pay more attention to the coincidence of cerebral paralyses with pregnancy, as he believes that it is more frequent than generally supposed.

83. **Early Narcosis**—Hofmann operates during the first whiffs of ether as his experience with hundreds of cases has shown that pain is almost if not entirely abolished and the muscles are completely relaxed. The depth and duration of the narcosis may be estimated from the condition of the muscles The patient is placed in the required position with clothing loosened and told to count slowly backward. When he is doing this tranquilly the ether is dropped on the mask and narcosis is complete in one to three minutes. If not complete, chloroform is substituted. Everything has been prepared beforehand for the operation, which is commenced at once so soon as the muscles are relaxed. The few drops of chloroform used to supplement the ether are preferable to the exclusive use of ether. He regards this as the ideal narcosis.

84 **Ether Drop Narcosis.**—Barten proclaims from Berndt's surgical service at Stralsund that the ether drop narcosis is the least dangerous of all methods of narcosis known to date, while its technic is the simplest

85 **Bier's Passive Hyperemia.**—Luxembourg has treated 50 patients with various joint affections by the application of Bier's technic of passive venous congestion. He uses a thin, transparent rubber band for the ligature, applying it for an hour morning and evening. Careful analysis of the material has shown that this simple, inexpensive and painless procedure is a most effectual mode of treating joint affections. The prompt relief of the pains is one of the best features of the treatment

87. **Diagnosis of Pulmonic Incompetency.**—Fromherz reports 2 cases in detail, with the features in common of dyspnea and oppression in the chest, extreme hypertrophy of the right ventricle with relatively good heart action. There was also hypertrophy of the left ventricle, the apex beat in the mammary line. In both there was also a *systolic* murmur with the maximum in the second interspace to the left of the sternum, the second sound over the pulmonary well audible and also the diastolic murmur. A still more important symptom was the hyperglobulia, which is almost a constant accompaniment of long-standing vices of the right heart, that i-

to say, conditions which induce disturbances in the domain of the pulmonary artery, especially those disturbances which diminish the total surface of the blood being oxidized. This hyperglobulia is not to be regarded as an evidence of disturbed compensation, but as an effort at compensation. The increase in the number of red corpuscles at high altitudes may be likewise viewed from this standpoint. The differentiating points between imperfect closure of the semilunar valves of the pulmonary artery and other pathologic conditions are enumerated, showing that the condition can be differentiated by exclusion if in no other way, and rational treatment depends on proper diagnosis.

88. **Nose Built Out of Arm.**—Habs' patient had entirely lost the nose and its bony support in consequence of lues. He made a new nose out of the arm by the technic shown in fifteen illustrations, with surprisingly fine cosmetic results. His technic differed from all others in that the strip of bone selected, covered with normal periosteum, was transplanted into the flap of skin that had been turned back above it. The raw surface of the split bone was turned toward the cutis, while a bridge of periosteum still connected it with the rest of the bone. The flap was then replaced and time left for adhesions to form between the bone and the under surface of the cutis. The bridge of periosteum was then severed and the free end of the flap turned down over the strip of bone. The bone was thus covered with good skin on both sides, and after three weeks' fixation of the arm to the face the flap was detached from its base and sutured in place. The lower quarter of the flap was then bent in at a right angle to give the nose the proper shape.

91. **Lumbar Puncture in Uremia.**—Seiffert has had extensive experience with lumbar puncture in uremia and has invariably found that the cases thus treated all recovered. In less than half an hour there is an amazing improvement in the condition. In his cases the uremia was due to scarlet fever. Lumbar puncture might prove equally effective in uremia from other causes, especially in eclampsia, but he has had no opportunity to give it a trial. He found the procedure a life-saving measure also in the initial convulsions of scarlet fever and of measles, although his experience with such cases has been limited. Even while the puncture was in progress consciousness returned and the convulsions ceased. It was impossible for him to test the cerebrospinal fluid obtained in these cases to learn whether it contained a specific toxin for animals.

93. **Electric Bell to Arouse Attendant.**—Büdingen gives an illustration of a simple contrivance to place under the rug by the bedside. As soon as any one steps on the rug an electric current is closed and a bell rings wherever desired. This bell is particularly useful in insane asylums, as it gives notice whenever a patient gets out of bed.

94. **Treatment of Hydrophobia.**—Georgescu describes the mode of treating rabies adopted by Babes. Besides the Pasteur treatment the principles of serum treatment are also applied, injecting the blood of immunized dogs, asses or horses. In addition Babes has discovered that the blood of persons who have undergone antirabies treatment acquires preventive value. The combination of all these measures has enabled cures to be realized, even when a much longer time has elapsed than hitherto supposed allowable. As it is difficult to obtain human blood for the purpose, he generally uses for injection the rabic toxins which he has isolated. This combined treatment has a much more powerful and more rapid action in the organism, the length of treatment is materially reduced and the mortality has been *nil*.

95. **Preservation of Raw Meat.**—A. Babes cuts the pieces of meat with as smooth a surface as possible, and then lifts them with an iron hook and dips them in a 2 per 1,000 solution of potassium permanganate. They are left in the fluid for twenty to thirty seconds, and then hung up in a ventilated room. By the third day the outside has dried into a protecting cover, which isolates the rest of the meat. In the course of a few weeks it becomes impossible to grow bacteria, even on slices cut from the meat.

Wiener klinische Wochenschrift, Vienna.

Last indexed page 745.

96 (XVII, No. 4.) *Zur Pathologie des gastro-intestinalen adenoiden Gewebes (tissue). O. Stoerk.
97 *Behandlung von Oesophagus-Carcinomen mit Radium-Strahlen. A. Exner.
98 *Ueber Kryoskopie und reflektorische Polyurie. G. Kapsammer.
99 Einfluss gynäkologischer Operationen auf die Menstruation. J. Bondi.
100 Todesfall infolge von latentem Aneurysma arteriæ vertebralis. O. Gross.
101 (No. 5.) Klinische Erfahrungen über die Gruber-Widal'sche Reaktion. B. Kreissl.
102 *Zur Aetiologie der Cystitis im Kindesalter (in children). T. Zelenski (Cracow).
103 Ambozeptor-Theorie und Kälte-Versuch. J. Morgenroth.
104 *Tuberkulose, Pocken, Traumatismen, Syphilis unter tropischen Indianern. O. Effertz (Mihuatlan, Oajaca, Mexico).
105 (No. 6.) *Ueber Hautreflex (skin reflexes). K. Kreibich (Graz).
106 When Should an Injured Limb Be Amputated? F. Schopf.—Wann soll ein verletzten Glied amputiert werden?
107 (No. 7.) *Formation of Sugar in Liver Preserved in Alcohol. J. Seegen.—Die Zuckerbildung in der Leber unter Alkohol.
108 Ein neues, als selbständing erkanntes akutes Exanthem. D. Pospischill.
109 *Ueber die Art der Rückbildung von Karzinom-Metastasen unter der Einwirkung der Radium-Strahlen. A. Exner.
110 Melano Sarkomatosis piæ matris. O. Stoerk.
111 *Zur Kenntnis des Symptomenbildes: Polycythämie mit Milz-Tumor und "Zyanose." W. Türk. (Commenced in No. 6)
112 (No. 8.) Aceton-Gärung (fermentation). F. Schardinger.
113 Die Hernia intravesicalis. V. Blum.
114 Zur Kenntnis der traumatischen Luxation der Hand-Gelenke (of wrist). J. Berdach.
115 Three-branched Forceps for Gastroenterostomies. M. W. Heiman (Rydygier's clinic, Lemberg).—Eine dreiblättrige Klemme zur G.
116 *Gastrointestinal Anastomosis Without Opening Lumina. Sato From society report.
117 (No. 9.) *Mild Refrigeration to Hasten Healing of Granulating Wounds. S. Stiassny.—Ueber die Wirkung geringgradiger Kältetraumen auf granulierenden Wunden, zugleich ein therapeutischer Beitrag.
118 Alimentäre Glykosurie und Myxödem. W. Knöpfelmacher.
119 Zur Kenntnis der Chorea chronica progressiva. K. Frank.
120 Ueber die Rinden-Epilepsie (cortical). M. Mann (Budapest).
121 (No. 10.) *Der osmotische Druck und der Organismus. J. Kiss (Budapest).
122 Experimentelle Studie zur Frage der Ausscheidung von Bakterien *aus dem Körper* (elimination of bacteria). W. Noetzel (Königsberg).

96. **Proliferation Processes in Adenoid Tissue of Digestive Tract.**—Stoerk gives a number of illustrations of a peculiar proliferation. The surface of the stomach or intestines presents rolls or folds or disseminated bunches in the adenoid tissue suggesting lymphosarcomatosis, but there is no regional progression. The affection seems to occur universally from the start, or at least in more than one region at once. There is no metastasis nor involvement of adjacent organs, as in lymphosarcomatosis, and the microscopic findings speak against pseudoleukemia, although the affection has features suggesting both. The clinical picture comprised alternating diarrhea and constipation—the patient a working woman of 57—with edema, increasing weakness, "stabbing" pains in the abdomen, and small tumors could be palpated resembling parts of a fetus. Death in eight months. The necropsy showed the proliferation of adenoid tissue above described, extending through the stomach, but most pronounced in the large intestine, especially below the flexure. The second case was a woman of 26, and the lesions were restricted to the small intestine. Death occurred in consequence of perforation at two points in the lower ileum, through ulcerated nodules.

97. **Radium Treatment of Cancer of Esophagus.**—Exner's successful treatment of impermeable cancerous stricture of the esophagus was mentioned on page 929 of The Journal. He uses a No. 16 bougie, and screws on it a cylindrical hard rubber capsule, a rounded tip fitting into a hollow cylinder of the same. Between these two parts is inserted the scrap of radium —not more than 60 mg.—imbedded in dammar. The radium causes cavities in ulcerative carcinomata, due to necrotic breaking down of the tissue. This property of the radium renders permanent the enlargement of a cancerous stricture by this means, but it entails the possibility that perforation may be induced or hastened with too large dosage. He describes the details of 3 cases. All the patients had been treated by instrumental dilatation, with only transient benefit. The radium was applied seven times for twenty minutes during two weeks in the first case; in the second, four times for thirty minutes each in the course of eight days; in the third, six times for

thirty minutes each during a corresponding number of days, and twice more after suspension for nine days. Two other cases were treated with about the same technic, and the results have been apparently perfectly successful in each. Still another patient was treated before the technic was perfected, but the progress of the cancer was such as to render palliative efforts useless, and he died in less than four months.

98. **Cryoscopy and Reflex Polyuria.**—Kapsammer writes from the Vienna Institute for Experimental Pathology that his and Paltauf's experience has demonstrated that catheterization of the ureters is liable to entail a reflex polyuria which may prove misleading in the functional tests. He emphasizes the necessity of catheterizing both kidneys, and of paying due heed to the amount of urine, comparing it with the normal average, which he believes is .5 c.c. to the minute for each kidney. Particular attention should also be paid to the escape of urine outside the catheter.

102. **Cystitis in Children.**—Girls are subject to cystitis more than boys, but Zelenski reports 4 cases observed in boys between 4 and 12. One was due to a coccus, the invasion favored by trauma, the others to tubercle bacilli, although the general health was good. In 2 cases the kidney had evidently been primarily affected and in another there had been a preceding tuberculous fistula in the epididymis None of these cases was permanently cured.

104. **Pathology of Tropical Indians.**—Effertz has resided for six years in southern Mexico, at one of the hottest points He has noticed that tuberculosis always takes the galloping form among the natives, fatal in three months in apparently the most robust subjects On the other hand, their resistance to traumatisms is amazing He was superintendent of the hospital at Pochutla, which has only three wards, and the one that happens to be empty is used for the morgue There is no flooring and no bed linen The patients lie on duck cots and the duck, being nailed on, is never washed. The families of the patients are supposed to attend to the cleaning of the room. Two of the patients were brought in moribund. With these exceptions he never lost a patient during his régime and never had a case of "wound fever," although the wounds are always severe and usually multiple, generally the result of a drunken fray in which the huge knives, the 'machetes," are freely wielded They resemble an old Roman sword in shape and almost in size. The skull was opened in many instances and the dura visible Other patients had the ribs broken in and breathed through this artificial opening All recovered under kreolin dressings without surgical intervention and without fever Smallpox has a mortality of 75 per cent among these Indians Malignant forms are the rule at the onset of an epidemic He never had occasion to observe cases of recent syphilis, nor any of tabes or paralysis, nor tertiary lesions Although extremely refractory to syphilitic infection, yet the disease exists among them Testimony to this fact was afforded by the fulminating form of syphilis acquired by a European from intercourse with the Indian women Effertz suggests as a possible explanation for these paradoxical facts that tuberculosis and smallpox are comparatively new diseases to these Indians, while syphilis has been with them for centuries and has thus conferred a kind of immunity on the race. The reverse is true of Europe, where tuberculosis and smallpox are the old diseases and syphilis the new one He is convinced that all diseases have a tendency to die out in time and that the last phase they pass through before their final extinction is the venereal phase, that is, requiring more intimate contact for infection The day is coming, he thinks, when syphilis will have entirely vanished and tuberculosis will have subsided into an exclusively venereal disease—the stage in which syphilis now is at present in man. In animals it has already passed beyond this stage and completely died out, leaving permanent immunity. This hereditary immunization against syphilis explains the fact that as immunization progresses the therapeutic effect of drugs increases in proportion, and consequently when a disease has arrived at the venereal stage there will always be a better chance for a successful specific.

105. **Reflex Pathology of the Skin.**—Kreibich had a patient, a hysteric young woman, who submitted to various tests which demonstrated the possibility of causing in fifteen minutes by reflex action various cutaneous affections. He attributes them to irritation of the walls of the vessels by nervous influences. The walls become permeable and allow the passage of fluids. Large effusions are thus forced out under high pressure into the fibers of the cutis and the epithelium, causing vesicular eczema, which is thus in certain cases due to a nervous influence by the reflex route on the vasomotors. His tests establish the possibility of a nervous origin by reflex action for many kinds of skin affections from mere hyperemia to gangrene, the primary irritation being central.

107. **Sugar Formation in Liver Tissue Preserved in Alcohol.**—During Seegen's last illness he urged the immediate publication of this, his last work, to call attention to the discovery mentioned in the title. It modifies our previous conceptions of the mechanism of sugar formation Since his announcement that under certain circumstances no glycogen could be found in the liver immediately after death, he has been constantly studying the subject of glycogen formation. The chopped liver of dogs was examined for glycogen and sugar at once after death and again at intervals after the liver had been set aside in alcohol. In one experiment the liver contained 9 per cent. sugar at once after death and 7.9 per cent after having been five days in alcohol. In another the percentage was at first 1.1 and after seven days in alcohol it amounted to 7.4. The total sugar increased in like proportion The elaboration of sugar continued under the surface of the alcohol. The theory that the elaboration of sugar is a function of the living cell is disproved by these facts. Instead of the mysterious vital forces of the living cell we must admit chemical action as a factor in the production of sugar. The action of enzymes as an essential factor in the process of elaboration of sugar is likewise excluded by these new facts Hence the assumption that the liver sugar is derived from the liver glycogen is refuted once for all

109. **Mode of Retrogression of Cancer Metastases Under Radium Rays.**—Exner was able to trace histologically the retrogression of carcinomatous nodules in the mamma in one out of the 2 cases described. The findings were controlled by histologic examination of excised, non-exposed nodules. He found that exposure for a single half hour was able to induce complete retrogression of a nodule in the cutis The retrogression was complete in five weeks. The most remarkable feature of the phenomenon is that while the cancer cells retrogress none of the other elements of the cutis is destroyed. He gives 8 illustrations of the findings They show that within a week of the exposure there is a new formation of connective tissue, while at this time the cancer cells show no change There are numerous new formed capillaries in the new connective tissue No change appears in the cancer cells (vacuolization) until two weeks have elapsed. The rapid proliferation of connective tissue seems to spread the cancer cells apart and overwhelm them by its growth, actually squeezing them to death The exposed cancer tissue thus behaves like a transplanted fragment of an organ It does not succumb to rapid necrosis, but is grown through by the surrounding tissues and slowly absorbed However this may be, one thing is certain, namely, that the physiologic relations of growth between the cancer cells on the one hand and the connective tissue on the other are disturbed The latter is stimulated to a proliferation which chokes out the former. Whether the exposed cancer cells suffer in their vitality from the effects of the exposure and thus become less resistant, is still a matter for conjecture

111. **Polycythemia with Enlarged Spleen and Pigmentation.**—Turk has encountered 7 cases of this symptom complex since 1900. He analyzes them in detail and mentions that he had very promising results from administration of large doses of arsenic in one case. He proposes to use it further if he happens to meet any more patients with this affection. He administered it on the grounds that arsenic checks the pro-

liferation of the blood-forming tissues. He has had occasion to note this fact repeatedly in myeloid leukemia. He administered progressive doses up to 30 drops of Fowler's solution daily, keeping it up for months. The number of erythrocytes diminished under this medication by one and one-half millions, the hemoglobin by 4 gm. to the 100 c.c. of blood. The intense purpura pigmentation vanished almost completely, *and the* spleen became very much reduced in size. Of course the toxic effects of arsenic must be considered, so that the drug can not be kept up indefinitely, but the results encourage further attempts in this line.

116. Gastrointestinal Anastomosis Without Opening the Lumina.—Sato studied on dogs and monkeys the behavior of two submucous surfaces in contact in the intestinal tract. He found that simple contact, even when the serous and muscular coats had been removed, did not lead to a communication between the parts, but that when the parts in apposition were treated with a caustic an opening was soon established. In monkeys this occurred in less than twenty-four hours. The silver nitrate pencil is more convenient for the purpose than the thermocautery, and the moist caustic causes less damage than heat. He incises and detaches the serous and muscular coats at the spot and applies the silver pencil about 1 or 2 mm. from the edge of the wound, carefully sponging away any excess of the nitrate that may be dissolved. The surfaces are then sutured together according to Czerny's technic. The lumina are not opened until nearly twenty-four hours after the surgical intervention, thus affording better conditions for repair. The operation is extremely simple and rapid.

117. Refrigeration Treatment of Granulating Wounds.—Stiassny sprays the wound with ethyl chlorid after protecting the ulcerating portion with an insoluble salve. He tabulates the details of 48 cases thus treated. His conclusions are that this treatment is liable to prove a valuable adjuvant to other measures in case of leg ulcers, although it is not always successful. It is particularly beneficial in granulating effects on a traumatic basis. The surrounding tissues are sound in these cases and respond to the stimulation of the cold application. He uses for the protecting salve a mixture of equal parts of lanolin and vasogen and one-tenth Peruvian balsam. The best results were obtained with hospital patients, as they could be sprayed two or three times a day, while the outpatients were seen only two or three times a week.

121. Osmotic Pressure and the Organism.—Kiss reviews what is known on this subject and points out that the theory of osmosis is far from explaining the processes observed in the living organism. These processes resemble physical processes under certain aspects, but they differ from them in many points, such as, for instance, the fact that they generally occur much more rapidly. The *reaction of the cells* is always physiologic, not purely physical. The cell works with molecules and ions and probably utilizes also the forces of osmosis, guiding and transforming them to suit its purpose, but the *modus operandi* is to date still a mystery.

Zeitschrift f. Krebsforschung, Berlin.

Last indexed page 865.

123 (I, No. 2.) Importance of [illegible] Bodies and Cancer In- [illegible] Animals with [illegible] d (Buf- [illegible] (bezw. [illegible] schliches [illegible] herung bei Tieren.

124 [illegible] über die Taubenpocke (pigeon disease). L. Michaelis (von Leyden's clinic, Berlin).

125 Cancer Research in London and Paris. L. Aschoff (Göttingen).—Notizen über den gegenwärtigen stand der Krebsforschung in London und Paris.

Books Received.

Acknowledgment of all books received will be made in this column, and this will be deemed by us a full equivalent to those sending them. A selection from these volumes will be made for review, as dictated by their merits, or in the interests of our readers.

The Perpetual Visiting and Pocket Reference Book. Including Information in Emergencies from Standard Authors, also the Following Comprehensive Contents: Table of Signs and How to Keep Visiting Accounts, Obstetrical Memoranda, Clinical Emergencies, Poisons and Antidotes, Dose Table, Blank Leaves for Weekly Visiting List, Memorandum, Nurses' Addresses, Clinical Record, Obstetrical Record, Birth Record, Death Record, Vaccination Record, Bills Rendered, Cash Received, Articles Loaned, Money Loaned, Miscellaneous, Calendars for 1904 and 1905. Bound in Morocco, Red Edges. *Pp.* 124. *Price, Free* (postage 10 cents). St. Louis, Mo.: The Dios Chemical Company. 1904.

Laboratory Manual of Physiological and Pathological Chemistry, for Students in Medicine. By Dr. E. Salkowski, Professor in the University and Director of the Chemical [illegible] Pathological Institute, Berlin. Authorized [illegible] Second Revised and Enlarged German Edition. By W. [illegible] A.B., *Ph.D., Professor* of Organic and Physiological Chemistry in Cornell University. With 10 Figures and a Colored Plate of Absorption Spectra. First Edition. First Thousand. Cloth. Pp. 263. Price, $2.50. New York: John Wiley & Sons. 1904.

Abbott's Alkaloidal Digest. A Brief Therapeutics of Some of the Principal Alkaloidal Medicaments, with Suggestions for Clinical Application Embodying Various Articles on Important Special Agents and Certain Great Phases of Alkaloidal Therapy That Have Been Developed in My Personal Practice. By W. C. Abbott, M.D., Editor of the Alkaloidal Clinic. Flexible Leather. Price, 50 cents. Pp. 54. *Chicago:* The Clinic Publishing Co. 1904.

Atlas and Epitome of Operative Gynecology. By Dr. O. Schäffer of Heidelberg. Edited, with Additions, by J. Clarence Webster, M.D. (Edin.), F.R.C.P.E., *Professor of Obstetrics and Gynecology* in Rush Medical College, in Affiliation with the University of Chicago. With 42 Lithographic Plates in Colors. Cloth. Pp. 138. Price, $3.00 net. Philadelphia, New York, London: W. B. Saunders & Co. 1904.

A Manual of Clinical Diagnosis by Microscopic and Chemical Methods. For Students and Practitioners. By Charles E. Simon, M.D., Late Assistant Resident Physician at Johns Hopkins Hospital, Baltimore. Fifth Edition, Thoroughly Revised and Much Enlarged. Pp. 695, 150 Engravings, 22 Colored Plates. Cloth. Price, $4.00 net. Philadelphia and New York: Lea Brothers & Co. 1904.

A Practical Treatise on Nervous Diseases. For the Medical Student and General Practitioner. By F. Savary Pearce, M.D., *Professor in Nervous and Mental Diseases* in the Medico-Chirurgical College of Philadelphia. Colored Frontispiece, 91 Illustrations in the Text, Many in Colors. Cloth. Pp. 401. Price, $6.00. New York and London: D. Appleton & Co. 1904.

Air, Food and Exercises. An Essay on the Predisposing Causes of Disease. By A. Rabagliati, M.A., M.D., F.R.C.S. Edin., Honorary Gynecologist, and Late Senior Honorary Surgeon, Bradford *Royal Infirmary. Third Edition, Greatly Enlarged and Almost Entirely* Rewritten. Cloth. Pp. 559. Price, $3.00 net. New York: Wm. Wood & Co. 1904.

Directions for Laboratory Work in Physiological Chemistry. By Holmes C. Jackson, Ph.D., Assistant Professor of Physiologic Chemistry in the University and Bellevue Hospital Medical College. Second Edition, Rewritten and Enlarged. First Thousand. Cloth. Pp. 148. Price, $1.25. New York: John Wiley & Sons. 1903.

The Value of Ureteric Meatoscopy in Obscure Diseases of the Kidney. A Study in Clinical and Operative Surgery. By E Hurry Fenwick, F.R.C.S., Surgeon to and a Lecturer on Clinical Surgery at the London Hospital. Cloth. Pp. 219. Price, $2.30 net. London: J. & A. Churchill. Philadelphia: P. Blakiston's Son & Co. 1903.

Diseases of the Intestines. A Text-Book for Practitioners and Students of Medicine. By Max Einhorn, M.D., Professor of Medicine at the New York Post-Graduate Medical School and Hospital. Second Revised Edition. Cloth. Pp. 397. Price, $3.00 net. New York: Wm. Wood & Co. 1904.

Informe Mensual Sanitario y Demografico de la Republica de Cuba. Presentado al Secretario de Gobernacion Sr. Eduardo Yero Buduen por el Dr. Carlos J. Finlay, Jefe de Sanidad de la Isla de Cuba. Diciembre, 1903. Paper. Pp. 61. Junta Superior de Sanidad de la Isla de Cuba.

Immune Sera. Hemolysins, Cytotoxins and Precipitins. By Professor A. Wassermann, M.D., University of Berlin. Authorized Translation. By Charles Bolduan, M.D. First Edition. First Thousand. Cloth. Pp. 77. Price, $1.00. New York: John Wiley & Sons. 1904.

Lectures, Chiefly Clinical and Practical, on Diseases of the Lungs and the Heart. By James Alexander Lindsay, M.D., F.R.C.P. (Lond.), M.A., Professor of Medicine, Queen's College, Belfast. Cloth. Pp. 447. Price, $3.50 net. New York: Wm. Wood & Co. 1904.

Contribucion al Estudio de la Escarlatina en la Habana por el Dr. Mario G. Lebredo, Vice-director del Hospital "Las Animas." Para Distribucion Gratis. Paper. Republica de Cuba. Secretaria de Gobernacion. Junta Superior de Sanidad. Habana. 1904.

Obstetrics for Nurses. By Joseph B. De Lee, M.D., Professor of Obstetrics in the Northwestern University Medical School, Chicago. Fully Illustrated. Cloth. Pp. 460. Price, $2.50 net. Philadelphia, New York, London: W. B. Saunders & Co. 1904.

Sonder-Abdruck aus Arbeiten aus dem Gebiete der klinischen Chirurgie dem Andenken Hofrat Professor Dr. Carl Gussenbauer. Gewidmet von seinen dankbaren Schülern. Paper. *Pp.* 39. Wein und Leipzig: Wilhelm Braumüller. 1903.

The International Medical Annual. A Year *Book of* Treatment and Practitioner's Index. 1904. Twenty-second Year. Cloth. Pp. 770. Price, $3.00 net. New York: E. B. Treat & Co.

Thirtieth Annual Report of the Medical Director of the Cincinnati Sanitarium. For the Year Ending Nov. 30, 1903. Paper. Pp. 17. Cincinnati: W. B. Carpenter Co.

Twelfth Annual Report of the Board of Health of the City of Spokane, Wash. For the Fiscal Year Ending Dec. 31, 1903. Paper. Spokane: Union Printing Co. 1904.

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Address.

SURGICAL TREATMENT OF NEPHRITIS.

(BRIGHT'S DISEASE.)[*]

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CHICAGO.

As early as 1889 I explored the right kidney of a young man, 24 years of age, who presented symptoms of stone. There were pain and tenderness in the region of the kidney, and attacks of renal colic with hematuria at irregular intervals. No calculus was discovered by the exploration, but he was relieved of his colics and hemorrhages for some time. Four years later he died of Bright's disease.

For the next seven years my experience with the fixation of floating kidneys impressed me with two facts: First, that a symptomatic cure was obtained when the organ was suspended by its rolled-off capsule, the nephralgia passing away and the urine becoming normal in quantity and quality; and second, that in cases diagnosed as nephralgia and floating kidney, when this was not done, but a simple nephropexy performed instead, many of the cases were not benefited by the operation. I recollect in 1890 operating on one of these a second time, on account of pain in the region of the kidney, where a stone was suspected. In my exploration the capsule was peeled off and the kidney opened and punctured. This effected a cure, and she is alive and well, Nov. 22, 1903 (by letter).

A more careful study of the cases of tender and floating kidneys revealed phenomena which gave us an increased interest from a clinical standpoint. The difference in the character of the pain, from sensations of a dragging weight or constant dull ache when on the feet, often eased when lying down, to severe paroxysms like renal colic; or, again, to exacerbations of pain of a neuralgic nature, sometimes extending to the nerves on the affected side, was suggestive of the existence of different conditions in the kidneys that had left their normal positions. The nausea, vomiting, anorexia, diarrhea, constipation, flatulence, debility, frequent urinary disturbances, emaciation and depression of spirits or mental confusion, often found in these cases, are no doubt expressions of mild uremia in nephritis, and not due, as we formerly supposed, to floating kidney *per se*.

It has been many times disputed that movable kidney produces any effect on the character of the urine. When a person with a floating kidney seeks advice, with often a history of scanty urine, high-colored, a sedimentary deposit, or at other times it is more copious than normal, and blood, hyaline and granular casts and albumin are found in it, there is a nephritis present as well, and whether the inflammation or the floating kidney existed first is often doubtful.

The graver condition now is the nephritis, and decapsulation and nephropexy are indicated. That a nephritis was present in the vast majority of my cases, I have verified by a microscopic examination of a portion of kidney tissue removed at the time of the operation. In three instances of floating and tender kidney met with since January, 1899, no changes were present in the kidney tissue. The pain and tenderness in them must have been caused by something else—congestion, nephralgia, twisting of the ureter, etc. This is positive proof that they are not all cases of nephritis, as I formerly supposed.

The only accurate means of diagnosing the condition of a kidney that is floating and tender, with no changes in the urine, is by a microscopic examination of a portion of the kidney. It is not infrequent to find interstitial nephritis (microscopically) when no albumin or casts are in the urine prior to the operation, which are instances of "nephritis without albuminuria." On the other hand, chronic Bright's disease may be present in floating kidneys, where pain was not a symptom nor tenderness a sign, but in what percentage I do not know. In my experience, I have refused to perform nephropexy, because Bright's disease was present as well as the floating kidney.

Do not these facts teach us that all floating kidneys should be suspended by their own stripped-off capsule, whether they are painful and tender or not, for by so doing we surely prevent the organ from again wandering; and, what is still more important, the progress of a destructive disease in a large percentage of cases may be cut short. I have yet to see a case in which decapsulation and suspension of a normal kidney did harm.

During 1897 and 1898 I frequently expressed the opinion at my clinics that a certain form of Bright's disease (interstitial nephritis) was always connected with a tender floating kidney, and was symptomatically cured by stripping off the capsule and suspending the kidney; but we now know this is not always the case. While formerly my object in the treatment of these cases was to put the kidney at rest, now, however, on account of the frequency with which inflammation occurs at the same time, the treatment of the latter becomes the more important.

On June 17, 1896, at the Chicago Post-Graduate Hospital, I performed decapsulation for nephritis and floating kidney in a young girl, with excellent immediate results. I was assisted by Drs. W. A. Tichenor and E. M. Brown.[1] My first double decapsulation for nephritis and floating kidney was performed also at the Post-Graduate Hospital, on Dec. 9, 1897, assisted by Drs. E. M. Brown and W. A. Tichenor, and in the presence of a large class of doctors from different states.[2] The immediate result was amazingly good. It is now over six years since I operated on this woman. She is in better general health than she has been for the last eighteen years. I have had her urine examined four times the last month, with the same report each time, as follows: In twenty-four hours, 60 ounces. No albumin; no sugar; no casts; no blood; urea 1½ per cent.

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[*] The President's Address, delivered before the Western Surgical and Gynecological Association, at the Thirteenth Annual Meeting, held at Denver, Colo., Dec. 28 and 29, 1903.

This case is important for many reasons. Chief among them are:

1. That her right floating kidney was fastened a year previously by stitching it in place by a good gynecologist, without splitting or peeling off the capsule, but thereby she was not relieved.
2. Decapsulation relieved this same kidney of pain and tenderness.
3. The double decapsulation so far has cured her interstitial nephritis.
4. Six years last September 9 seems a fair time test.

On Dec. 16, 1898, in a discussion at the Chicago Gynecological Society on "Movable Kidney," I advanced the following ideas:[3]

"On the kidney being exposed, its condition is to be considered. If there be a firm adherent capsule to the kidney, it had better be stripped off, as, for instance, in interstitial nephritis. The stripping off of such a capsule improves the condition of the kidney, in that it liberates its cortical portion, and we observed the improvement in the urine afterward.

"I do not wish to be misunderstood with reference to removing the normal capsule of a kidney. I condemn this, and I do not do it. But the peeling off of a thick, pathologic capsule is a thing that is desirable. I have gone into the subject at considerable length in my surgical work, and the distinguished Professor Klebs agrees with me that where we have a thickened, fibrous, pathologic capsule, pressing on and destroying the kidney, it is a good sound surgical practice to peel off the capsule."

This was before I had removed portions of kidney for microscopic examination, but the opportunity to do this soon arose. Before the Chicago Academy of Medicine, Feb. 10, 1899, I mentioned my early work, and reported two cases of interstitial nephritis and floating kidneys, giving a microscopic report of sections. My paper appeared in The Journal March 18, 1899.

These two cases were operated on January 4 and 14, 1899, respectively, and are still, from a recent report, in good health.

In about a month later, Dr. G. M. Edebohls published his first article, entitled "Chronic Nephritis Affecting a Movable Kidney, as an Indication for Nephropexy."[4]

In my work I am pleased to report progress in all the cases reported at New Orleans last May. Between four and five years ago only two surgeons, Dr. Edebohls and myself, were decapsulating kidneys for Bright's disease. Since then no less than about forty surgeons have reported cases.

These have been collected by Dr. Ramon Guiteras of New York, and number 120 cases in all. I wish to add three important cases to this list.

Case 1.—*Renal Decapsulation and Puncture for Acute Diffuse Nephritis. Death.*—June 12, 1903, Dr. Ira H. Rea called me to see a case with him and Dr. W. H. Waugh, at Wheaton, Ill. The patient, a man 56 years of age, had been ill with acute nephritis for twenty days. He was a merchant, visited Wisconsin on business, and there caught cold while driving through the country. When Dr. Rea saw him on his return, his urine was scant, 30 ounces in twenty-four hours, and very bloody, but contained no casts. He then complained of pain in the region of both kidneys, and felt very ill. He was a man of excellent habits, and never before gave any evidence of nephritis. The doctor had been treating him for stomach disturbances off and on for several months. During this period he had an analysis made of the urine several times by Dr. W. A. Evans of the Columbus Medical Laboratory, and at no time did it contain the slightest evidence of kidney disturbance or disease. A few months previously he passed for life insurance. Dr. Rea also had made examinations of his urine repeatedly, with negative results.

When I saw him, on the twentieth day of his illness, he was *in extremis.* A general puffiness of the face and extremities, a rapid respiration (thirty-six per minute), and an uncontrollable drowsiness, with persistent vomiting, presented an unmistakable picture of his condition. He had only passed 8 ounces of urine in six days, which contained blood; urea, 1 per cent. per vol., but no casts. He had been kept profusely perspiring for days, and this accounted in part for the scant urine. It appeared that he responded to treatment very well the first few days, and even got out of bed. A relapse of his symptoms stubbornly resisted all medication and attention.

Decapsulation of his kidneys was discussed. It was clear that he was about to pass away before long, and everything else had been already done. With the distinct understanding that possibly an operation might relieve him, I undertook the procedure on the right kidney there and then, assisted by Drs. Rea, Waugh and Norman H. Ferguson. Local anesthesia (cocain) was used until the kidney was exposed. The traction on the forceps grasping the fat gave him pain, so a little chloroform was administered to the point of analgesia, and the kidney decapsulated, punctured, and a V-shaped piece removed. The bleeding from where the section was removed was so profuse that a couple of mattress sutures of catgut had to be passed to control it. The kidney was about normal in size, nodular on its surface, and of a dark blue color. It felt tense, and its capsule was blistered and separated here and there from the cortex by bloody serum. On splitting it, bloody serum escaped, and no difficulty was experienced in peeling out the kidney with my finger. The capsule easily tore, and it was nearly all removed. With the capsule removed, the kidney was dark red in color, and firm and friable in consistency.

In my judgment, here was a condition in which many punctures were indicated. My objects in puncturing a diseased kidney in many places are: (1) To relieve tension; and (2) to open many glomeruli, urinary tubes and blood capillaries. From these openings blood, serum and urine come from the kidneys at once into the dressings.

To come back to this case, I drained the wound with a rubber tube and plain gauze. He died in fifteen hours after the operation from edema of the lungs, for his lungs filled up, and he never regained consciousness. In my opinion, he died sooner than he probably would have if left alone. No urine entered the bladder after the operation, but the dressings had to be changed several times, and they were soaked with a bloody fluid, having the odor of urine.

Pathologic Report.—A study of many sections of the portion of kidney tissue showed an acute diffuse inflammation engrafted on a chronic interstitial nephritis. The malpighian bodies suffered severely, their epithelium being degenerated and necrotic here and there. The streaks of red running through the specimen were linear hemorrhages. The small, mottled, grayish-red spots were the epithelial cells of the convoluted tubes and malpighian bodies greatly proliferated, degenerated and necrosed. The capillaries of the tufts were filled with cells and thrombi, with leucocytes and red blood corpuscles within Bowman's capsule. There was cloudy swelling; fatty and hyaline degeneration of the tubular epithelium. Along with these parenchymatous changes, the interstitial ones were fully as marked. Small-celled infiltration occurred about the capsules and between the tubes, and active proliferation of the connective tissue. Chronic changes were manifested by an increase of the connective tissue surrounding the malpighian bodies and convoluted tubes, as well as hyperplasia of the walls of the blood vessels and thickening of Bowman's capsule. Bloody, hyaline and granular casts were pent up in several places within the tubules.

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[1] Journal of the American Medical Association, July 4, 1903.

[2] Case 2, Jour. Am. Med. Assn., July 4, 1903.

[3] The American Gynecological and Obstetrical Journal, Feb., 1899.

[4] Medical News, New York, April 22, 1899.

IMPORTANT FEATURES OF THIS CASE.

1. Chronic interstitial nephritis, with every evidence of granular kidney without any previous symptoms or signs. If a microscopic examination of a portion of the kidney had not been made, the case would have gone down in history as one of acute nephritis.

2. The severity of the acute diffuse nephritis without other apparent cause than exposure to cold is remarkable. It was so severe that it might be called "hemorrhagic nephritis," which, however, is more characteristic of intense septic and infectious cases.

3. Operation was of no avail, because it was too late in being performed. This case supported the view that acute nephritis is considerably within the scope of the surgeon's work. We are convinced that if double decapsulation and puncture had been performed within a week of his illness, he would at least be alive to-day. I am of the opinion that in acute inflammations of the kidneys the consultant should be the surgeon. In this man the surgical treatment of his kidneys should have been the same as of a phlegmonous inflammation of his hand, in which free incisions would have been promptly made to relieve tension, and to liberate imprisoned poisonous materials. It is through a study of surgical pathology, especially where the elements of the disease are caught red-handed, on the operating table, that true conservative surgery can be unassailably established.

Case 2.—*Interstitial Nephritis, Chronic, Double Decapsulation. Recovery.*—(Surgical clinic at the College of Physicians and Surgeons, Chicago, Nov. 20, 1903.) I operated on this man, who has just walked in to report himself, four weeks ago for chronic, interstitial nephritis, and, as you will remember, his two kidneys were decapsulated at the one sitting. The surgical treatment of nephritis is not mentioned in your textbooks. I am, therefore, constrained to give a brief review of this case, and also of the one I operated on a week ago. He is 45 years of age, strongly built, of better habits than formerly, and a Chicago politician by occupation. He was employed as a street-car conductor sixteen years ago, but had to give it up on account of pain in his back.

Condition on Admission (Nov. 16, 1903).—The face, hands and feet were swollen and edematous. Under the lower eyelid pitting on pressure was not as marked as on his feet and ankles, and still less on his hands. The conjunctivæ were chronically congested (red), and his eyesight was so poor that he could not recognize his friends very well. He had the appearance of one who had been drinking heavily for a long time, although he had not imbibed. The fundus of both eyes revealed great capillary congestion, but no hemorrhages. His arteries were apparently sclerotic, and left ventricle of the heart hypertrophied. There were no valvular lesions, but the second sound (aortic) was unduly accentuated. His most prominent complaints were:

1. Headache. This symptom began eight months ago, lasting at first from a few hours to two or three days; migraine in character. With the lapse of time the headache became more and more severe and persistent until finally it was constant.

2. Dizziness. For several years dizzy spells would come over him occasionally, but since the onset of the severe headache this symptom became more frequent and troublesome.

3. Vomiting, nausea, retching and sometimes diarrhea were gastrointestinal disturbances which accompanied the severest attacks of headache.

4. Frequent urination. During the daytime he urinated about every hour; could not often go two hours with comfort, and at night he urinated four or five times. Lately he has had tenesmus at the neck of the bladder after micturition (septic deep urethra).

5. Loss of strength. His strength began to fail three years ago, and since then he has lost about twenty pounds. Since the headache has become so marked, he has not been able to earn a living with his head or hands.

6. Nervousness. Feeling miserable, sometimes drowsy and again wakeful. Between the attacks of headache, he felt a soreness through his brain, which prevented him from inclinations to thinking or talking. There has been some pain and tenderness in the region of his kidneys for several years, but lately this symptom was overshadowed by those already mentioned.

7. Coma once. One week before he entered the hospital he became unconscious and remained in that condition for three or four hours. The coma followed one of his severe headaches. No convulsions occurred. He was in the hospital one week before I operated, which made it sixteen days after the occurrence of the coma. While the symptoms of this disease are varied and often insidious, making a diagnosis sometimes difficult, the few symptoms and signs I have already mentioned, even without telling about his urine, point to but one condition—interstitial nephritis.

Urine Before Operation.—Quantity, 72 ounces in twenty-four hours. Pale amber color; sp. gr., 1007; urea ¾ of 1 per cent.; albumin, 36 per cent.; pus cells; epithelium; casts, both hyaline and granular.

Operation (Nov. 23, 1903).—Chloroform was administered. A skin incision was made parallel to and half an inch below the twelfth rib on each side. The kidneys were then reached by splitting the muscles and dragging out the fat with forceps, which brought the kidney into view. The capsule was split over the cortex and peeled off. The right kidney was smaller and firmer than normal; the perinephritic fat was more vascular and fibrous than normal and firmly adhered to the kidney, and the capsule was thickened and firmly adherent to the cortex of the kidney. In stripping it off, small portions of kidney broke off with it in several places. While no effort was made to save the capsule from injury, still the major portion of it was left as a collar around the root of the kidney. The surface of the kidney was darkish-red in color, which bled rather freely, and also from multiple punctures. A V-shaped section was removed for microscopic study; from this wound arterial blood spurted from a small arteriole. A mattress suture of fine catgut controlled it. The fat was now displaced below the organ, the wound closed, and drainage of gauze and tube inserted to the surface of the kidney.

The left kidney was not so pathologic in appearance, its surrounding fat and capsule not so thick and fibrous. On peeling off the capsule no bleeding occurred similar to that on the other side. A section of kidney tissue was removed.

Urine After the Operation.—For three days blood was present in the urine. The quantity passed in twenty-four hours varied from fifty-six to sixty-six ounces. The urine of the fourth day had a specific gravity of 1010; 20 per cent. albumin; urea, 1 per cent., and it also contained hyaline and granular casts; pus, which was from deep urethra. Several examinations of it since then have shown no material change, and I expect to find albumin and casts for several weeks. In some cases the improvement in the urine is most remarkable, the albumin and casts disappearing between three and six weeks.

Microscopic Report of Renal Tissue Marked R. and L. (from the P. and S. Laboratory).—One (R.) was from the right kidney and the other (L.) from the left. The changes in both were characteristic of chronic interstitial inflammation. There was increase of fibrous tissue throughout the sections, forming concentric layers about the tubules and Bowman's capsule, with some round-cell infiltration. In the selection from the right kidney there was complete atrophy of some of the glomeruli, represented by densely encapsulated hyaline masses. In no instance were the tufts and capsule normal, there being thickening and increase in the number of cells. The convoluted tubes showed hyaline, granular and fatty changes. Epithelial débris and tube-casts. Where the connective tissue was most abundant, the tubules were atrophied, and represented by cubical cells. A few of them were dilated.

Result.—The immediate result in this case is simply marvelous. The clinical picture is completely changed. Before the operation he was suffering with uremia, which was manifested by the headache, dizziness, vomiting and nervous disturbances; even a coma on one occasion. All his symptoms vanished within a week. His mind cleared up; sight completely restored and appetite returned. No headache, restless nights, vomiting nor pain in the back now. The appearance of the man has changed completely. The swelling and edema of his face, hands and lower extremities have disappeared. He looks happy, and says that he never felt better in his life.

CASE 3.—Same clinic. *Chronic Parenchymatous Nephritis. Double Decapsulation. Death.*—The case I operated on a week ago died on the third day from pulmonary edema. You will recollect that I gave a bad prognosis just as soon as I saw his kidneys. He was a young man, 18 years of age; had scarlet fever twelve years ago, but his nephritis was not discovered until nine months ago.

Condition on Admission (Nov. 13, 1903).—There was general edema all over the body. Face puffy, cellular tissue around the eyes filled with serum; scrotum slightly edematous; vision very bad, could not count fingers nor distinguish his mother from the nurse. He complained of "spots before his eyes" (fundus not examined), headache, indigestion, nausea, vomiting, frequent urination and a small quantity each time, backache and tenderness over the kidneys. Slight difficulty in breathing and occasional spasms of his muscles of the right arm. He was evidently verging on uremic convulsions.

Urine Before Operation.—In twenty-four hours twenty to thirty-six ounces. Quantity decreasing. Specific gravity, 1010. Pale, bad odor, acid; albumin, 35 per cent.; urea, 1 per cent.; hyaline and granular casts.

Operation (Nov. 13, 1903).—Chloroform throughout. Double decapsulation at one sitting, double nephrotomy and drainage. The first stroke of the knife through the skin and fat was followed by rapid oozing of clear serum. During the entire operation it kept one assistant busy mopping it up. The fat around the kidneys was water-logged, the capsules thin and insignificant, the organs themselves very small, pale and bloodless. Each kidney was about one-third the size of a normal one. On passing the knife into the pelvis of each no bleeding whatever occurred, which was a bad sign. In this case I forgot to remove a section of the kidney tissue until it was too late. It was so clearly a case of "small white kidney," parenchymatous nephritis in its clinical history, symptoms, signs and microscopic findings in the urine, that I feel satisfied with our diagnosis. He stood the operation well.

Urine After Operation.—First twenty-four hours eighteen ounces voided by bladder and dressings were soaked several times. Second twenty-four hours twelve ounces voided by bladder and dressings soaked three or four times. Bowels began to move rapidly and urine was not collected on third day, but the kidneys were secreting all the time.

Result.—Death at the end of three days from edema of the lungs. This young man had received from internists all the skill and medication that this city can afford. It was of no avail. Inasmuch as the exact condition of the kidneys could not be accurately known by the findings in the urine or symptoms and signs, I decided to offer him the only chance left for a respite from his nephritis. Considering that his kidneys were so extremely small ("small white") and in an advanced pathologic state, it is a surprise that the chloroform and operation did not put them completely out of commission. His kidneys secreted urine to the last.

INDICATIONS FOR SURGICAL TREATMENT.

1. *Floating Kidney.*—Floating kidney may now be put down as one of the indications for decapsulation. An observation, no doubt a common one, is that a floating kidney is often accidentally discovered in one's own person, or is found by a physician, at a time when no disturbing symptoms are present from it. It is made light of and often forgotten until some day it gets painful and tender, the urine becomes irregular in flow, sometimes scant and again profuse albumin appears in it; urea decreases; cylindroids are observed and the general health is being undermined. In a nervous person the pain might be suggestive in origin, but the urinary changes never. During the last six years I have held the view that a floating kidney should not be operated on simply because it was dislocated. I therefore refused to operate on other than those giving disturbance. I have learned that several of those whom I advised to have no surgical interference came under the knife of some other surgeon. I made inquiries of thirteen widely-scattered cases, and all but three had undergone an operation because of the painful and annoying symptoms instituted by the floating kidneys.

On the other hand, a freely movable kidney may be diseased without causing pain and tenderness, or even constant urinary changes. This experience and knowledge have convinced me that all cases of floating kidneys should be treated by decapsulation and fixation. I firmly maintain also that the surgeon's work is not complete without a microscopic examination of a piece from the kidney. It is surprising how often you find the unexpected—chronic nephritis.

2. *Nephritis and Floating Kidney.*—It has been maintained that cases of floating kidney with the symptoms and signs so characteristic of nephritis are not cases of nephritis at all, but that the condition is temporary, the symptoms disappearing in due time after nephropexy. The only way to refute such a statement is to exhibit under the microscope sections of the kidney of the cases in question. The immediate result in this class of cases has been so amazingly prompt, and the remote results so permanent, that some surgeons doubt these to have been cases of nephritis.

It is a matter of common clinical experience to find that nephritis does not always find expression in the urine, and the data from it are often unreliable in forming an idea of the severity of the disease. Inasmuch as I could not produce better cases than the first two cases from which kidney tissue was removed to impress the importance of the microscopic examination, I am constrained to reproduce the reports, which are as follows:

Pathologic Examination.—(Klebs' Pathological Laboratory.) The section of kidney from the case of Mrs. M., sent to the laboratory Jan. 4, 1899, presents the following changes: The connective tissue growth is not extensive, the lining epithelium of the tubes is more implicated, as in chronic parenchymatous nephritis. The lining epithelium of the convoluted tubules shows cloudy swelling, and there is some small cell infiltration in some parts of the kidney, indicating that the inflammatory process is still existing. The epithelia of the glomeruli are nearly lost, some of the glomeruli consisting only of a homogeneous mass. Capsules of Bowman thickened; tubules with atrophic epithelium present, dilated tubules, desquamated epithelium in some of them, hyperplastic connective tissue around others. Pathologic diagnosis: Interstitial nephritis with cloudy swelling.

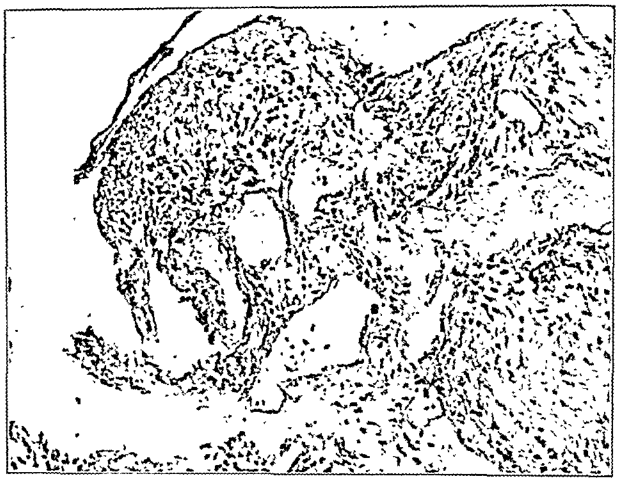

Figure 1.

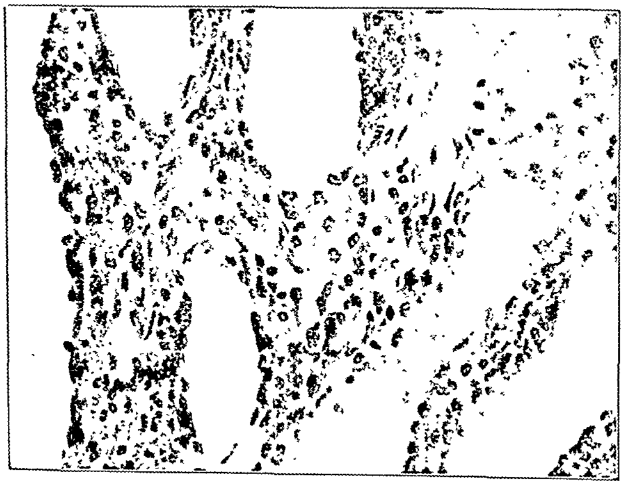

Figure 2.

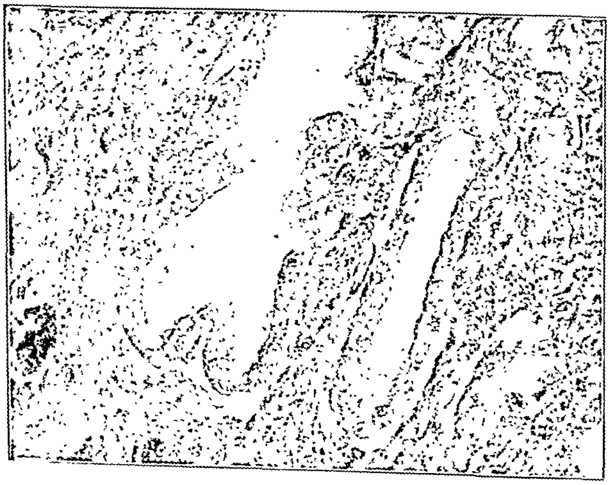

Figure 3.

The above pathology is represented by microphotographs Nos. 1, 2, 3 (Zeit). The second case from which kidney tissue was removed and studied Zeit furnished the following report:

The section of kidney from the case of Mrs. W., examined Jan. 14, 1899, shows the picture of an interstitial nephritis with much proliferation and hyperplasia of connective tissue, areas of which consist entirely of this connective tissue growth, with obliterated or waxy glomeruli. Between these portions

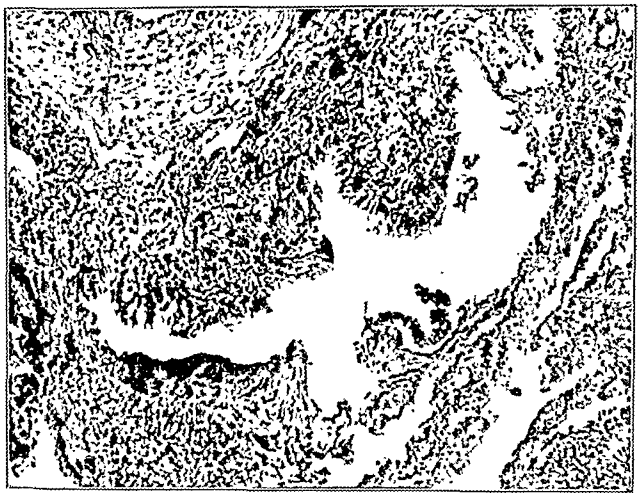

Figure 4.

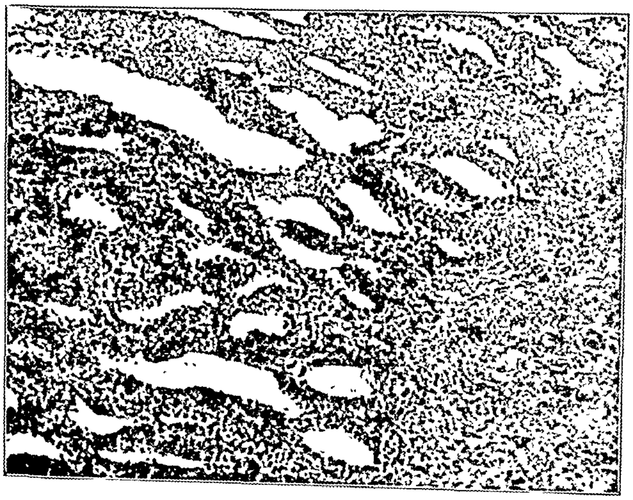

Figure 5.

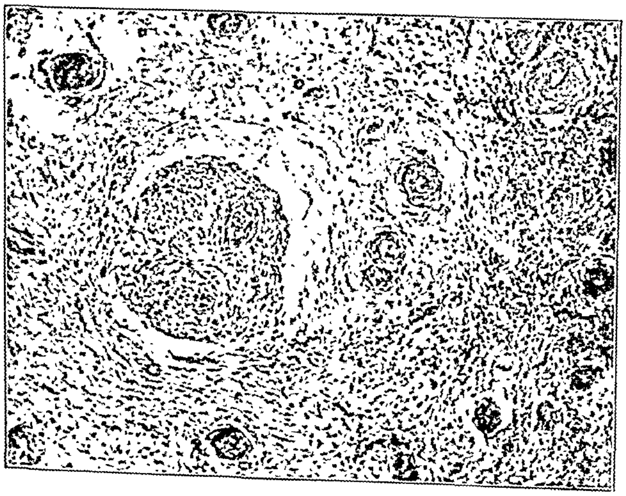

Figure 6.

are found islands of partially changed kidney tissue, in which there are atrophic tubules and tubules with a desquamated epithelium, flattened epithelial lining in tubules of diminished caliber, and some cloudy swelling in the lining of the epithelial cells. In some of the tubules hyaline casts are found. The capsules of glomeruli are thickened, and their connective tissue with many nuclei is arranged in concentric layers.

These changes are represented by microphotographs Nos. 4, 5 and 6 (Zeit). These microphotographs speak for themselves and are produced for the first time, to put at rest whatever misgivings may have been expressed regarding the pathologic findings in those cases.

In reply to the statement that the cures were so rapid that they could not have been true cases of nephritis, it is, I must say, almost incredible that the clinical picture of one in suffering and distress can, within a few days, by a simple operation, be transformed to represent ease and happiness, but it is just as true as it is that most of the tender floating kidneys are true cases of nephritis, as demonstrated microscopically. It is equally hard to believe that within a few weeks or months the symptoms and signs of the nephritis clear up. We must remember that the kidneys have an abundant vascular supply, excretory tubes and glomeruli, more than enough to carry on their ordinary functions, and a recuperative and regenerative power that is most wonderful. With the knowledge that we possess of the rapid subsidence of acute, subacute and chronic inflammations of other organs, and parts of the body, when properly treated, we should no longer doubt the rapid cure of kidney inflammation when given the best opportunity to flush itself of poisonous materials through its natural system of drainage, and also allow blood serum and urine to drain through punctures made in it. Nature repairs the traumatism made in reaching the kidney wonderfully rapidly, and why not as speedily restore the kidney to assume its function and cease supplying albumin, casts, etc., to the urine? In tender and floating kidneys the fact that a small portion of the organ is removed, and that we find it diseased, is no proof that the whole kidney is in the same pathologic condition. In sections from floating kidneys there are sometimes only slight changes, while again all the characteristic destructive changes of advanced nephritis are present. It is my firm belief that a floating kidney is a frequent cause of chronic nephritis, by constantly interfering with its vascular supply, nutrition and free excretion of urine.

3. *Nephritis.*—*a.* Acute Bright's disease. *b.* Chronic interstitial (Bright). *c.* Chronic parenchymatous (Bright).

Mr. Reginald Harrison boldly and successfully attacked acute diffuse nephritis under a mistaken diagnosis, but nevertheless originated the splitting of the capsule to relieve kidney tension, and has written fully concerning his cases. Whether acute Bright's disease be due to exposure to cold and wet, accompanies or follows specific fevers, or is caused by toxic agents or pregnancy, it would seem rational not to allow the patient to speedily die without following the example of Harrison.

GENERAL REMARKS.

In looking over the literature I find that the causes of death after the operation in 123 cases, by different surgeons, were as follows: Four died of pulmonary edema, 6 of uremia, 4 of coma, 3 of sudden heart failure, 3 of exhaustion, and one each of endocarditis, suppression of urine (ether being given), anuria, general dropsy, collapse, pleuritic effusion and myocardial thrombosis. There were 27 deaths out of 123 cases, within a year after the operation. A closer analysis shows that of these 27 deaths, 6 died within eighteen hours after the operation, 9 between one and nineteen days, 2 between two and seven weeks, 3 between two and three months, and 1 lived a year. The vast majority of these deaths must not be attributed to the operation. Even allowing all deaths within a week to be due to the operation, there would be a mortality of only about 9 per cent. When the limitations of the operation are more clearly defined, and many of the extreme cases left alone, the mortality should not be more than 5 per cent. in the hands of experienced surgeons. It is fair to conclude that the earlier an operation is performed in these cases the less will be the fatality, and the greater the benefits.

Original Articles.

THE CORRECTION OF RETRODISPLACEMENTS OF THE UTERUS.*

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It is unnecessary to occupy your valuable time by going extensively into theories advanced as to the etiology of retrodisplacements of the uterus, or discuss the almost endless train of subjective symptoms that have been attributed to this condition. Nor shall I attempt to trace the evolution of the treatment from the time of Hodge down through the operative measures that have been devised during the last decade. This is history with which you are all familiar.

The uterus, bladder and rectum have their physiologic range of motion, and must remain susceptible of motion to perform their functions normally. This being true, there can be no fixed axis of the uterus while it retains its normal relation to the other pelvic organs. Simultaneously with retrodeviation beyond the normal limit of motion, there is a descent of the organ toward the pelvic outlet, with a change of its relation to surrounding viscera, as well as corresponding changes in its blood supply and drainage of its secretions. With pre-existing or subsequent pelvic inflammation, the uterus and adnexæ become fixed in mal position.

It is perhaps the most generally accepted opinion that labor and abortion are the chief etiological factors in the production of retrodisplacements. While we know that damage to the integrity of the pelvic floor with an infected and heavy uterus frequently acts as a cause, we know equally well that it does not always do so. We encounter at the examining table cases of extensive lacerations with heavy, subinvoluted uteri, in which the axis of the organ is normal. On the other hand, we find cases of extreme retrodeviation in young girls and unmarried women in whom the uterus may be almost infantile in type, perhaps fixed by adhesions. A study of the clinical history of many of these cases will show tubal and pelvic inflammation to have existed. Congenital retrodisplacement is extremely rare.

The consensus of opinion of those who have had the richest experience seems to be that simple, uncomplicated retrodisplacements rarely give rise to disturbing symptoms, and when they coexist they are caused, in large part at least, by other pathologic conditions. No treatment, therefore, should be suggested until a careful examination reveals the relation between the possible causes of the symptoms and the retrodisplacement. To this end, general anesthesia for examination may be necessary. Nothing should be overlooked or taken for granted. We should not be content when we find distended and adherent tubes or a prolapsed and tender ovary, but should explore the rectum for hemorrhoids or fissure, which, as we all know, may give rise to symptoms closely simulating those derived from pathologic conditions within the pelvis.

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* Read at the Thirteenth Annual Meeting of the Western Surgical and Gynecological Association, held at Denver, Dec. 28-29, 1903.

In the few uncomplicated cases, implying a uterus movable and free from inflammation, but which gives rise to discomfort either psychic or real, the use of a well-fitting pessary in connection, if necessary, with pelvic massage and postural treatment, may be all that is required.

With the advances made by modern, aggressive surgery, the use of the pessary was all but abandoned; there seems to be of late, however, a wave of sentiment back toward its more frequent employment, which possibly will increase as we learn to differentiate our cases more carefully. After the selection of the proper case for its use, the most serious objection to it is the time required to accomplish a permanent result. Its use implies a patient having the leisure and means which will enable her to be "tied to a doctor's office" for months or years. The same condition occurring in a woman who is obliged to work, standing on her feet many hours each day, demands something different, as she can not afford the protracted treatment of her (perhaps) more fortunate sister. In her case measures must be employed which will restore to her in the least possible time the ability to work comfortably. This, of course, means an operation. Many operations have been devised, the great number being the strongest evidence of their shortcomings. The chief source of failure and disappointment that has attended these operations has probably come from the belief that it was the position of the uterus *per se* that gave rise to symptoms demanding treatment, instead of the coincident pelvic lesions that accompany it. Dysmenorrhea is not an infrequent accompaniment, but is rarely caused by it, and is, therefore, almost never relieved by the correction of the displacement, either by mechanical treatment or operation. When this is the chief symptom complained of, it is wise to be guarded in promising relief.

The organ has been attacked from above and from below; its natural ligaments shortened and new ones made with the central idea of correcting its abnormal axis. With the clearer understanding of pelvic pathology in connection with these cases, I think we may safely look for better results in the cases we operate on, and in our choice of a method one will be selected that enables us to deal with all possible complications.

Of the many operations devised, the ventrosuspension of Kelly and Olshausen and the extraperitoneal shortening of the round ligaments after the Alexander-Adams method, or some modification of the same, are still the operations in most common use. The vaginal methods of Duhrssen, Mackenrodt and others have not found especial favor on this side of the Atlantic. That ventrosuspension still serves a useful purpose is evidenced by the fact that it is advocated by some of the ablest members of the profession. In doing it, one is enabled to deal with all intrapelvic complications, and it is probably chiefly for this reason that it has held its own against the extraperitoneal methods, notwithstanding the fact that it drags a pelvic organ into the abdomen and creates a source of potential danger that is recognized by all.

The Alexander-Adams operation is applicable only to cases in which the uterus is freely movable and free from pelvic complications. In other words, its application is confined largely to cases where it is least needed and where it can be of the least benefit.

The same argument, I think, obtains, although perhaps to a less degree, to operations done for this condition through the vagina. The advocates of this route insist that they are able to deal as thoroughly with any possible complications found within the pelvis, as through a suprapubic opening. This position, I feel quite sure, will never be accepted by the majority of operators. The slight advantage claimed for the vaginal route can hardly offset its palpable disadvantages. While ready to grant that the majority of cases may be successfully operated on by some method through the vagina, it is certainly true that with tubal infection that has created a mass of matted adhesions involving, perhaps, intestines, or the vermiform appendix, better, cleaner and safer work can be done from above.

The majority of cases require the careful use of the curette as a preliminary step, as endometritis is a common complication. If the cervix is lacerated and hypertrophic, it should be repaired or amputated. Lesions of the pelvic floor should, of course, be repaired. Whatever the operation selected, it should permit of thorough intra-pelvic work, and should be one that restores the normal axis of the uterus, at the same time leaving it free to adapt itself to its normal range of motion. The operation I am about to describe meets these requirements. It was devised by Dr. George H. Noble of Atlanta, and brought out by him in a paper entitled "Intramural Extraperitoneal Anchorage of the Round Ligament for Posterior Displacement of the Uterus." This paper was read before the Southern Surgical and Gynecological Association at its meeting held in Cincinnati last year. In describing the technic I can do no better than to quote freely from Dr. Noble's paper:[1]

"1. A transverse incision is made through the skin, fascia, fat and aponeurosis down to the recti muscles. This incision, in the ordinary subject, should be about 1½ inches above the pubis, and should extend laterally to the outer border of the recti. The recti are separated vertically in the median line and the peritoneum opened in the same direction. The pelvis is investigated, proper attention given to the local pathological conditions, and the uterus raised.

"2. A pair of light compression forceps with teeth in the end (Senn's) is passed through the abdominal opening, and grasps one of the round ligaments about the middle of its intraperitoneal portion. By traction on the forceps the uterus is pulled somewhat to the side of the pelvis which is opposite the ligament held, the peritoneum is drawn away from the region of the internal abdominal ring, and the ligament made taut so that it may be the more readily recognized in the extraperitoneal manipulations to follow.

"3. Now just beyond the outer edge of the rectus, at the end of the transverse incision, the point of a pair of artery forceps is thrust through the posterior sheath of the muscles, but does not enter the abdomen. The forceps is opened and withdrawn, so that an aperture large enough to admit the index finger is left. The finger is introduced through this opening in the preperitoneal fat, and feels the round ligament without difficulty, for it is brought into prominence by tension on the forceps which holds its uterine end.

"4. The finger, passed through the opening just described, is hooked under the extraperitoneal portion of the ligament from below upward, and draws it up into the wound. The sheath of the ligament is then split open by blunt dissection. The sheath and the peritoneum are stripped back in the direction of the uterus, completely divesting the ligament of its covering. It is then drawn out of the wound, and forceps slipped underneath retains it until the opposite ligament is raised and denuded in the same way. If the uterus has been in a state of marked retroversion, the ligaments will have become so attenuated as to allow their approximation in the median line in front of the recti, which approximation will restore the uterus to its normal position.

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[1] Transactions Southern Surgical and Gynecological Association, 1902, p. 217.

"5. When it has been determined that the ligaments are long enough to meet in the median line they are each left looped over forceps, while the peritoneum of the median incision and the recti muscles are closed with continuous kangaroo or catgut sutures.

"6. The ligaments are next approximated in front of the recti and tied together.

"7. Now, beginning in one angle of the transverse incision, the cut edges of the aponeurosis are stitched together with a continuous kangaroo suture. When one or two loops of the suture have been passed, the needle, in crossing the interval between the two edges, is made to pass through the ligament. It is well also to pick up a little of the muscle on each side of the ligament in order to provide against dead spaces. This process is continued as each successive loop is passed until the center of the incision is reached, when the free end of the suture is clamped and left long. Starting in the other angle of the transverse incision (but looping in a contrary direction, so that when the two sutures meet their free ends may be on opposite sides of the wound), a second strand of kangaroo unites the edges of the aponeurosis on that side and picks up the round ligament and adjacent portions of the muscles as before. The kangaroo tendons are tied together, and the ligaments are thus embedded and firmly anchored between the aponeurosis and muscles.

"8. The structures in front of the aponeurosis are closed in the usual manner."

The advantages of the operation may be stated as follows:

There is but one incision and through it any pelvic complication may be treated.

The operation utilizes the strongest part of the round ligament instead of its distal end. The normal mobility of the uterus is not disturbed, and it is left in the pelvis where it belongs.

It causes no vesical irritation or dysuria if the ligaments are not embedded too low down, and no dragging if they are not brought through too high up.

The anchorage is superior in permanency to all peritoneal attachments; the uterine portion of the ligament will not stretch away.

There are no sutures in fundus to irritate the uterus.

The fixation is extraperitoneal; no irritated point invites subsequent adhesions to abdominal viscera.

The peritoneal investment of the ligament is not drawn into the abdominal walls, producing funnel-shaped depressions and inviting hernia.

It does not interfere with the physiological development of the uterus during pregnancy.

During the last year I have made this operation 23 In all but 3 there were intrapelvic or other com- 9 s. In 10 the appendix vermiformis was remov- week cause of a history of definite recurring attacks of appendicitis, or because from its appearance it was deemed wise to remove it. In one case a broad ligament cyst was removed, and in several diseased appendages were taken out. These are mentioned merely to show that there is no difficulty in doing any necessary intrapelvic work through the transverse incision and separation of the recti muscles. In all the cases local office treatment by means of tampons or pessaries had been resorted to without relief. Most of the cases were in women who are obliged to work, and who preferred to undergo an operation rather than submit to further treatment. The three uncomplicated cases were marked neurasthenics with dysmenorrhea. While the displacement remains corrected, there has yet been no improvement in the dysmenorrhea, and little or none in their general condition. There were no deaths or serious complications following these operations. So far as I have been able to follow the cases the results have been all that could be expected.

THE SURGICAL RELATION OF THE VERMIFORM APPENDIX TO PERFORATION IN TYPHOID FEVER.

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PHILADELPHIA.

To within a few years, perforation in typhoid fever and its well-nigh fatal consequence, perforative peritonitis, were regarded as complications beyond hope of relief by surgical intervention, until E. Leyden.[1] in 1884, recommended surgical repair as a rational procedure, likening the condition to suppurative pleuritis. Later in the same year, Mikulicz[2] reported three cases of his own, in addition to reviewing the cases previously recorded in literature. In 1886, Dr. J. C. Wilson[3] remarked: "The courage to perform laparotomy at this time will come of the knowledge that the only alternative is the patient's death."

Encouraged by these bold advocates, surgeons throughout the world have frequently reported operations for this heretofore fatal complication, even in the face of so high mortality as 80.64 per cent. (Keen), 73.78 per cent. (Finney) and 88 per cent. (Monad). Yet when we contrast with the above the mortality of 95 per cent. (Harvey Cushing) in cases unoperated on, it gives a sufficient margin to encourage the undertaking.

Our efforts will probably not be crowned with greater success until the clinician can determine the time of rupture in a given case, or the pre-perforative stage as pointed out by Cushing. The greatest possibilities, however, seem to lie in the removal of conditions that would predispose toward perforation.

The prophylaxis, therefore, in perforative peritonitis from typhoid fever is the pivot on which every effort should revolve, until either the cause is removed or accuracy in diagnosis has enabled the clinician to recognize the pre-perforative stage, as prompt interference after perforation has taken place has not evidenced any marked lowering in the mortality table, as shown by analysis of cases recorded by Finney, Cushing, Keen and others.

The appendix vermiformis is the seat of perforation in typhoid fever, according to Cushing, in 9.6 per cent.

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[1] Transactions of the Association for Internal Medicine, Berlin, 1884, No. 17, p. 258.

[2] Sammlung klinischer Vorträge, Richard von Volkmann, No. 262.

[3] Phila. Medical Times, Dec. 11, 1886.

of all cases of perforation; according to Fitz, in 3 per cent. of 167 cases; and according to Hopfenhausen, in 7 per cent. of 108 cases. According to Osler, Fitz, Murchison and others, perforation occurs in 3 per cent. of all cases of typhoid fever. It is the cause of death in from 6 to 7 per cent. of all fatal cases. The ileum, according to Finney, is the seat of perforation in 80 per cent., large intestine in 12 per cent., and the appendix in 5 per cent.

It is especially in this 5 per cent. of appendiceal perforations in typhoid fever that the author is interested; first, because of the belief that in addition to the 5 per cent. of perforations in typhoid cases arising from the appendix alone, there is a large number of cases occurring in the ileum and ascending colon that can be directly traced to pre-existing disease of the vermiform appendix, and in support of this belief, the following cases seem to bear witness:

Case 1.—(March, 1903.) A woman, 26 years of age, a member of a religious order, had been stricken with typhoid fever two weeks before symptoms of perforation of the bowel presented themselves to her attending physician; there had been, however, from the very onset of the disease, in addition to headache, backache and an extensive degree of nervousness, much pain to the right of the hypogastric region, associated with early and continued abdominal tympany; liver dullness was absent, splenic dullness increased.

When seen in consultation on the fifteenth day of the disease, she complained bitterly of severe and constant abdominal pain, especially in the right iliac region, constant nausea and some vomiting; pulse 140, temperature 100. The pulse rate from the beginning of her illness had been unusually high, the chart showing it at no time less than 120. The temperature, which at this time was 100, had ranged during the previous two weeks between 102.2 in the morning to 105, the highest in the afternoon. The pinched expression was pronounced and the patient in every way showed evidence of great illness. The point of greatest tenderness was just above and to the right of the pubes. Blood count at this time showed leucocytes to be 11,000. The patient was again seen four hours later, and a second blood count made, showing leucocytosis 14,000. Operation was at once advised.

Operation.—Under ether anesthesia, an incision five inches in length was made along the outer border of the right rectus muscle. The abdomen was found filled with gas and a large quantity of chocolate-colored fluid mixed with feces that the exudate had made no attempt at walling off. The opening in the bowel was readily found because of its great extent, in the ileum about 10 to 12 centimeters from the valve. The rent in the bowel involved nearly the entire lumen transverse to its long axis. The ileum and several inches of the ascending colon were firmly anchored by well-organized adhesions, evidently of long standing. The appendix could not be brought into the incision because of this firm anchorage of itself and the colon to the outer parietal wall.

The rent in the bowel was closed by means of the Czerny-Lembert sutures, the abdomen flushed with normal salt solution and afterward dried by means of sterile gauze mopping. Plain sterile gauze was packed about the sutured bowel and brought out through the incision, the remainder of it being closed.

Notwithstanding the extreme condition of the patient before, and at the time of operation, she seemed to stand it well, and if anything, somewhat rallied from it. There was certainly at least no pronounced shock following the operation; there was not any pronounced improvement, however, and the patient died sixty hours later.

Autopsy.—Anatomic diagnosis: Perforation of the ileum about 12 centimeters above the ileocecal valve, involving the entire bowel. The deep sutures had held firmly while the Lembert sutures showed that they had been dragged on by some tension which had been exerted on them. Agglutination of the coils of the ileum existed throughout most of the lower right side. The appendix was cicatricial to near its distal extremity, where it was firmly adherent to the lateral wall of the parietal peritoneum. It derived its nutrition entirely from this source. The colon was also firmly bound down. The position occupied by the appendix showed clearly the tension that it had exerted on the closed wound in the ileum; there had been, however, no escape of the contents of the bowel into the general parietal cavity after operation. The adhesions found between the coils of the intestines and also those about the appendix and colon were so firmly organized that they could not have occurred from the appendicitis in this instance.

In going over the earlier history of the patient, I find that she had suffered for some time from dull aching in the right side, though never any decided pain, often extending down the right leg, with spells of nausea, occasional vomiting and obstinate constipation; in other words, a very clear history of an insidious appendicitis.

Case 2.—(October, 1903). A woman, 22 years of age, married. Was seen in consultation on the fifth day of her illness, which was thought by her attending physician to be typhoid fever, though somewhat in doubt because of the history of an attack of appendicitis, mild in type, some months previous. In the beginning the patient had a chill with headache, backache and some epistaxis. The abdomen was somewhat tympanitic, liver dullness absent and splenic alteration could not be detected. There were considerable pain, which was constant, and marked tenderness on the slightest pressure in the right iliac region, extending up as high as the costal cartilages. There were constant nausea, anorexia and constipation; pulse 120; temperature, when I saw her at noon, 101.8. Previous to this temperature record showed a variance from 101 in the morning to 102.4 in the afternoon. On palpation rigidity was marked and an inflammatory mass could be distinctly felt in the region of the appendix. The tongue was coated with a dirty brown coating and flabby tooth-marked edges.

With the history of a previous attack, therefore almost certainly extensive adhesions, and with the undoubted presence of an acute attack now existing, I felt it was good counsel to advise immediate operation for the removal of the appendix, even in the face of a probably developing typhoid fever, recalling as I did, the clinical picture of the preceding case which I had seen but a few months before.

Operation.—On the seventh day of illness, under ether anesthesia, an incision was made 3½ inches in length directly over McBurney's point. After a search of several minutes an unusually short appendix with the center cicatricial was found embedded in an inflammatory mass behind the cecum. There was no pus present, though the intestines about the ileocecal region were intensely injected, and in several places there was agglutination of the coils of the ileum in the lower two feet. The mesentery glands seemed everywhere greatly enlarged and to the sense of touch so like the appendix that several times during the search they were brought out through the incision in mistake for the appendix. After taking much pains to break up all adhesions the incision was closed without drainage and the patient made an uneventful recovery. Stitches were removed on the tenth day.

The operation in no way interfered with the natural course of the fever from which she was suffering. Microscopic examination of a transverse section of the appendix showed a complete cicatricial obliteration of the lumen.

Blood count on the morning of the operation showed the number of white corpuscles 11,000. Positive diagnosis by the Widal reaction was made on the eighth day, or the day following operation. Temperature throughout the illness showed the highest reached in the afternoon, 103.8, morning temperature 102. The pulse ranged between 100 and 116. The entire course of the disease was characterized by constipation, it being necessary to use enemas whenever bowel movements were secured.

While the pathologic condition found in these two cases does not give the whole truth, it certainly goes far toward presenting a clew along the lines of prophylaxis in perforative peritonitis.

I am thoroughly convinced that in Case 1 the function of the bowel was so impaired by adhesions, not only of the coils of the ileum to each other, but the tension caused by adhesion of the appendix to the lateral parietal peritoneum, which favored solution in the continuity of the bowel at the point of ulceration at the site of Peyer's patches, was entirely responsible for the tremendous rent that took place. This was demonstrable at the postmortem, which showed the great amount of tension on the superficial sutures.

In Case 2, the only interpretation that could be placed on the extensive adhesions, so like those found in Case 1, is that a like result should have been expected. The inflammatory exudate, which takes place after every attack of appendicitis, it matters not how mild the type, is certain to impair to a degree the function of the bowel, not only immediately about the ileocecal region, but often extending over a considerable extent of the ileum disarranging the circulation, and in this way bringing about structural change in the bowel, interfering as well with the fecal current, and together serving as a most potent factor in the production of perforation.

Where the appendix has once been the seat of inflammatory change, a disease like typhoid fever is sure to light up a recurrence, and as at best its powers of resistance are poor, it could hardly be expected to escape rupture within the organ itself, or what would seem more often to take place, rupture of a Peyer's patch, which, if not actually caused by impairment of the function due to pre-existing disease in the appendix, may be regarded as at least favoring it. Not only do the two cases here reported bear out this belief, but many of those recorded, notably two of Osler's cases; one on admission had an inflammatory mass the size of a walnut in the appendix region, subsequently dying from perforation in the ileum, while the other at the autopsy showed perforation of the ileocecal region and the appendix embedded in an inflammatory mass. One of Hare's two cases also showed pre-existing disease in the appendix. Indeed, proof of pre-existing disease in the appendix in cases of perforation in typhoid fever is not wanting if careful analysis be made of the literature on the subject. Toft says that from personal investigation of 300 cases of illness of all sorts, every third person between the ages of 20 and 70, showed evidence of present or past traces of inflammation of the appendix, and that actual structural change existed in 5 per cent. of all bodies examined. Kraussald declares that this percentage is rather too low than too high.

If these percentages can be considered as accurate, it is within the power of the surgeon to reduce the mortality in perforative peritonitis in typhoid fever from 80 per cent. to 73, first by eliminating the appendix as a factor *per se;* second, by freeing the agglutinated intestines from adhesions caused by previous attacks of appendicitis, which afford possibility of still further serving as prophylaxis against occurrence of perforation in the ileum. Most observers agree that acute appendicitis, occurring during the course of typhoid fever, is merely a coincidence, and is probably in no instance the result of the bacillus of Eberth, nor to the general infective process resulting from the fever.

Hopfenhausen[4] shows in a study of thirty appendices removed from typhoid subjects dying from either asthenia or toxemia, that no special change existed in the appendix further than slight cellular infiltration, in no way sufficient to interfere with the function of the organ, and only that change that would be found anywhere in the intestinal tract that is supplied with lymphoid tissue. The type of appendicitis, therefore, that may be looked for during the course of typhoid fever, will usually be the recurrent.

Clinicians are generally agreed that the opinion formerly held of doubting the existence of typhoid fever where bowel symptoms were absent, is entirely erroneous, and as a matter of fact, bowel lesions are, if the bowel be previously healthy, rather atypical than typical symptoms at the onset of the disease.

With this knowledge in mind, when a case of typhoid fever presents among its earliest symptoms pain to the right of the hypogastric region with tenderness, nausea or vomiting, aching or discomfort in the groin, ofttimes extending down the leg, anorexia, and last but not least, rigidity of the right rectus muscle, a relighting up of a pre-existing disease should be suspected, knowing, as we now do, that the right iliac fossa is not tender early in typhoid fever; at least not until after the seventh or eighth day, when the bacillus of Eberth is deposited in the glands of the intestines (Peyer's patches), Immediate laparotomy would seem the only wise course to pursue, removing not only the appendix, but thoroughly freeing the agglutinated coils of the ileum from its tied-down position, which must of necessity impair nutrition of the parts, and consequently diminish its structural resistence.

Dieulafoy states that if an appendicitis exists, the course of the fever will be higher early in the disease, and it may also be inferred that the morning drop in temperature will be less pronounced.

A study of the temperature and pulse in the cases recorded by Finney, Osler, Fitz, Cushing and others confirms this observation, especially in reference to the pulse, which is found to be continuously higher than is found in uncomplicated cases of typhoid fever.

THE ACTION OF MINERAL ACID ON THE CELLULAR SUBSTANCE OF BACILLUS TYPHOSUS.*

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This research was undertaken for the purpose of ascertaining whether or not the cellular substance of the typhoid bacillus shows any tendency to uniform and definite cleavage under the influence of the mineral acids, the ultimate object being to learn something of the chemical composition and structure of the molecule making up the substance of the cell. In this paper, which must be considered only a preliminary contribution, general results only are given, with the hope of being able to go more into detail subsequently.

METHODS.

The material used in these studies consisted of the cellular substance of a typical typhoid bacillus, which was obtained from the mesenteric glands after death from typhoid fever, and which gave in a typical manner all the characteristic cultural manifestations of this organism. The toxicity of the living culture was tested on rabbits, guinea-pigs and white rats, and then the rganism was grown on the large tanks used in this aboratory, and the germ substance obtained in suffiient quantity to carry out the investigations to be deailed later. The germ substance was washed with alohol, then placed in Soxhlet extractors and the fat horoughly removed with ether. After this extraction he cellular substance was ground in agate mortars and eparated from any traces of agar or other impurity by eing passed through fine meshed sieves. As thus obained, the cellular substance exists as a white powder hat is fatal to the lower animals when injected in susensions in water into the abdominal cavity in the proortion of 1 to 40,000 of body weight.

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[4] Revue med. de la Suisse Romande, Feb. 20, 18.

* This and the following paper were in a series of studies of bacterial cells, research in the Hygienic Laboratory of the University of Michigan, 1903, read at the Fifty-fourth Annual Session of the American Medical Association, in the Section on Pathology and Physiology.

It has been suggested[1] that the intracellular toxins re not contained as such in the cells, but that they const of atomic groups or side chains of a more complex olecule. At any rate, to extract them, more active gents than mere solvents have been found necessary. n this research the action of a hydrolytic agent, namely, ilute sulphuric acid, has been tried. It was proposed find out whether or not this acid produced any defite cleavage—something as to the nature of the split oduct—whether it was a toxin, a protamin or someing else, and also to study the distribution of the nitrogen in the germ substance by aid of the action of the acid.

STUDY OF THE DETAILS OF CLEAVAGE.

First, acids of two different strengths were employed to determine whether or not the split product was affected by a variation in the strength of the acid. Two 10-gram samples of the powdered germ substance were extracted, one with 0.1 per cent. sulphuric acid, and the other with 1 per cent.; extractions being made in the cold first, then of the residue on a boiling water bath, at 110 C., and at 120 C. Extractions of these residues at 134 C. split off nothing further precipitable with the reagent used. The extracts were precipitated with three volumes of 95 per cent. alcohol, the precipitate filtered out, washed with alcohol, dried and powdered.

Two points of interest were observed, namely, that a definite cleavage seemed to take place in both cases, either the weaker or the stronger acid making the separation, and that in both cases the total amount of split product that could be obtained by extraction in this way was practically 1 gram, or 10 per cent. It is interesting to note in passing that two years ago, with the colon bacillus Vaughan obtained in one experiment, from the 50 grams of germ substance used, 5 grams of the substance split off with dilute sulphuric acid, and precipitated by alcohol,[2] which is 10 per cent., as found with the typhoid. The fact that treatment with acids of two different strengths yielded practically the same amounts of split product indicated that a certain definite cleavage had taken place. The figures for the amounts of split product are given in Table 1.

Table 1.—Results with Varied Strenth of Acid.

	0.1 per cent. H_2SO_4.	1 per cent. H_2SO_4.
Cold	0.2073	0.2015
Water bath	0.5427	0.6555
110° C.	0.1045	0.2215
120° (1 per cent. instead of 1/10 per cent.)	0.2290	0.0905
	1.0835	1.1690

In both cases no more was obtained by further extraction at a higher temperature, and while in the case of the series with 0.1 per cent. acid, a 1 per cent. acid was used for the extraction at 120; it is probable that several extractions with the 0.1 per cent. acid at that temperature would have accomplished the same result.

All these split products, as well as the final residue, were toxic for guinea-pigs, though not so toxic as the germ powder itself. It may be that the split products are not a single substance, but that they consist largely of some inert body with which the real toxin is mixed. The extracts all give the xanthoproteic test, also a fair Millon's, among the proteid color reactions, and those above 100, the biuret test.

From the 20 grams of germ powder used, there remained, after all extractions, a residue of 1.505 grams.

THE NATURE OF THE SPLIT PRODUCTS.

In order to investigate further the split products, a larger sample of germ substance was used, so that the yield might be greater, and in order to avoid as far as possible any decomposition of the split product by the acid, the weaker acid (0.1 per cent.) was chosen, since it seemed that by repeated extraction as much could be obtained as with the stronger acid. Accordingly, 200 grams of germ substance was extracted with 0.1 per cent. sulphuric acid in the cold, then the residue at 100 C. (flowing steam in the autoclave), and at 120 C. in the autoclave. The exact temperatures used for the smaller samples were found to be impracticable here, because with the larger amount, extraction on the water bath was not successful. Four liters of acid were used for each operation, and the extractions at a given temperature continued until no more was split off at that temperature, when the residue was again treated with acid, and extracted at the next higher temperature used. This required three extractions in the cold, four at 100 C. and two at 120 C. The amount of split product obtained by precipitating the extracts at each temperature with alcohol was the same relative proportion of the weight of the whole sample as the products obtained from extractions of the smaller samples, and the whole was approximately 20 grams, or 10 per cent., as before, the residue remaining this time amounting to 26.96 grams. The extracts each time were precipitated with three volumes of 95 per cent. alcohol, the precipitate after settling being filtered out, washed with alcohol, and then purified by dissolving, so far as possible, in water and reprecipitating with alcohol. In this way the split products were divided into a soluble and insoluble portion. The different soluble portions from each temperature were put together and repurified. The insoluble portions were saved except that at 100 C. This was very small in amount and so slimy and mucilaginous that it was not possible to remove it from the filter, and it was consequently lost. Determinations of ash, phosphorus and nitrogen were made in both the soluble and insoluble portions, and likewise in the final residue and original germ powder. First, the ash was determined, then the phosphorus in the ash. The nitrogen in each case was determined by the Kjeldahl method. The figures are given in Table 2.

It is evident that the extraction in the cold brought down first of all a large part of the inorganic constituents of the germ, among which iron and sodium were found, and it is interesting that the split product which was most toxic, the soluble part at 120 C., was the one containing the largest percentage of nitrogen.

An ultimate analysis was made of the soluble part obtained at 100 C., this being the only one of which there was a sufficient quantity for the purpose. The powder was dried to constant weight, and its constituents determined with the results given below. Carbon and hydrogen were determined by combustion, nitrogen by the Kjeldahl method, phosphorus in the ash by precipitation first with ammonium molybdate, then with magnesia mixture, sulphur by the alkali method[3] (fusion with potassium hydrate and nitrate, solution of the residue in acidified water, and precipitation as barium sulphate), and oxygen by difference.

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[1] Vaughan: A study of bacterial cells, Trans. Assn. Amer. Phys., 1902.

[2] Marshall and Gelston: Toxicity of the cellular substance of the colon bacillus, Trans. Assn. Amer. Phys., 1902.

TABLE 2.—Soluble and Insoluble Products.

Cold.						100° C.						120° C.						Residue.			Germ.		
Soluble.			Insoluble.			Soluble.			Insoluble.			Soluble.			Insoluble.								
Ash.	P.	N.	Ash.	P.	N.	Ash.	P.	N.	Ash.	P.	N.	Ash.	P.	N.	Ash.	P.	N.	Ash.	P.	N.	Ash.	P.	N.
72.6	.4058	3.75	55.65	8.43	5.89	5.28	.385	10.34	...	...	..	3.02	.87	14.5	4.78	1 50	12.26	2 60	.21	13.04	5.7	1 85	11.55
Ash free		13.72			13.28			10 918						15.01			12.89			13.424			12.258

TABLE 3.—Split Product at 100° C.

	C	H	N	S	P	O
With ash (5.28 per cent.)	45.73	5.95	10.34	1.13	0.386	36.46
Ash free	48.27	6.28	10.92	1.45	0.403	32.67

There was also an undetermined amount of iron.

The water solution of this split product gave good tests for the biuret, xanthoproteic and Millon's reactions. There was also a Molish's reaction, indicating a carbohydrate group, which was further supported by the fact that after boiling the substance with dilute acid, Fehling's solution was reduced. The split product was evidently proteid in nature, though a compound proteid. It could not have been a protamin, for the protamins are much richer in nitrogen, containing 30 per cent. or more. A comparison of its percentage composition calculated ash free with the percentage composition of ash free animal proteid as given by Hammarsten[4] is worthy of note, although a more extensive comparison with most of the known protein substances shows that its composition more closely resembles that of the group of glycoproteids, the mucin substances, especially that of a mucin from the mucus of sputum, and a mucoid from tendon, as given by Cohnheim.[5] The figures are given below. These glycoproteids, however, differ from the split product in that they contain no phosphorus. Only two phosphorized glycoproteids are known,[6] namely, ichthulin,[7] occurring in carp eggs, and helicoproteid,[8] obtained from the glands of the snail, and their percentage composition does not compare closely with that of the split product. Ichthulin has sometimes been classed with the nucleoalbumins. These phosphorized glycoproteids, like the split product, yield a reducing substance on boiling with acid.

TABLE 4.—Comparison Percentage Composition of Various Proteids with that of Split Product.

	C	H	N	S	P	O	Fe
Split product, (ash free)	48.27	6.28	10.92	1.45	0.403	32.67	+
Animal proteid, (ash free)	50.6-54.5	6.5-7.3	15.-17.6	0.3-2.2	0.42-0.85	21.5-23.5	
Mucin from mucus of sputum	48.26	6.91	10.7	+	—	33.1	—
Mucoid from tendon	48.3	6.44	11.75	0.81	—	32.7	—
Helicoproteid	46.99	6.78	6.08	0.62	0.47		+
Ichthulin	53.52	7.71	15.64	0.41	0.43		0.1

On the whole, the indications are that the split product obtained by the action of dilute mineral acid is of the nature of a phosphorized glycoproteid.

Blandine[9] reports the isolation of a nuclein and nucleoalbumin from cultures of the typhoid bacillus, while Brieger and Fränkel,[10] in their work on toxalbumins, found in cultures of the typhoid bacillus a proteid which was toxic for rabbits and which was thought to contain the typhoid toxin in an impure state.

THE NITROGEN OF THREE ACID EXTRACTS.

As has been indicated, there has been evidence of the presence of proteid bodies, so to study the distribution and amounts of the proteid decomposition products as obtained through the action of acid, it seemed expedient to make a more general study of the nitrogen content of the germ as extracted by acid. To obtain some idea as to the amounts of amido, monamido and diamido nitrogen in the decomposition of the germ by acid, represented by ammonia, the monamido acids and the hexon bases and to study their distribution when acids of different strengths were used, a comparative series was made, practically using the method of Hausmann.[11] By this method he determined the amido nitrogen determinable as ammonia, the nitrogen of the diamido bodies, as precipitated by phosphotungstic acid, and that of the monamido acids as found in the filtrate not precipitated by phosphotungstic acid. The method, while it has been severely criticized by Kutscher[12] and others, has still been shown[13] to give valuable *comparative* results, whereby general differences are plainly evident. The method of procedure was as follows:

Three 10-gram samples were extracted for five hours on the sand bath with reflex condensers, using 90 c.c. of 1 per cent., 5 per cent. and 33 1/3 per cent. sulphuric acid, respectively, for the three samples. The residues were each then boiled for an hour with 100 c.c. of water, and this added to the extract, the whole being then diluted to 200 c.c. The ammonia of each extract was determined in two samples of each by distilling with magnesia. Then the total nitrogen of all three extracts was determined by the Kjeldahl method. The extracts were next each made to contain 5 per cent. sulphuric acid, the required amount being added to the 1 per cent., and the 33 1/3 per cent. being diluted with the necessary amount of water. After this, each extract was precipitated with 25 per cent. phosphotungstic acid, and allowed to stand twenty-four hours, when the precipitates were filtered out, washed with diluted acidified phosphotungstic acid, dried, weighed and powdered, and the nitrogen determined by the Kjeldahl method. The nitrogen was also determined in the filtrates from these precipitates and in the dried residue remaining from the acid extraction. The results are given in Table 5. All the acid extracts gave the xanthoproteic and Millon reactions for proteid, and all, save the 33 1/3 per cent., the biuret test.

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[3] Beistle: The determination of sulphur and phosphorus in plant substances, Jour. Amer. Chem. Soc., 1902, 1094.

[4] Hammarsten: Physiol. Chem. (Mandel), 1900, 17.

[5] Cohnheim: Chemie der Eiweisskörper, 1900, 251 and 259.

[6] Hammarsten: Physiol. Chem. (Mandel), 1900, 49.

[7] Walter: Zur Kenntniss des Ichthulins, Zeit. f. physiol. Chem., xv, 477.

[8] Hammarsten: Studien über Mucin u. mucinahnliche Substanzen, Pflüger's Arch., 1885, xxxvi, 373.

[9] Blandine: La Riforma Medica, April 17, 1901; Med. Rec., May, 1901, 807.

[10] Brieger and Fränkel: Untersuch. über Bakteriengifte, Berl. klin. Woch., 1890, xxvii, 241, 268.

[11] Hausmann: Ueber die Vertheilung des Stickstoff in Eiweissmolekule, Zeit. f. physiol. *Chem.*, 1899, xxvii, 95.

[12] Kutscher: Ueber die Verwendung der Phosphorwolframsäure bei quantitativen Bestimmungen *der Spaltungsprodukte* des Eiweisses, Zeit. f. physiol. Chem., 1900-1, xxxi, 215.

[13] Osborne and Harris: Nitrogen in *protein* bodies, Jour. Amer. Chem. Soc., 1903, 323.

TABLE 5.—NITROGEN AS AMMONIA.

	1 %	5 %	33 1/3 %
Amount of extract	200 c.c.	200 c.c.	200 c.c
Wt. N as NH_3 in 200 c.c.	0.0112 gms.	0.0112 gms.	0.0112 gms.

TOTAL NITROGEN OF EXTRACTS (Including N as NH_3).

	1 %	5 %	33 1/3 %
Amount of extract	200 c.c.	200 c.c.	200 c.c
Wt. N in extract	0.4284 g.	0.7644 g.	1.0164 g.

PER CENT. TOTAL NITROGEN OF EXTRACT COMING OFF AS NH_3.

1 %	5 %	33 1/3 %
2.6143	1.4652	1.1019

The amount of amido nitrogen split off was the same in each case, which pointed to a definite cleavage regardless of the strength of the acid. The percentages varied, of course, since the total nitrogen of the extracts was different. The largest amount of total nitrogen was found in the 33 1/3 per cent. extract, and hence the smallest per cent. of amid nitrogen, while the smallest total nitrogen was in the 1 per cent. extract. The amid nitrogen varied from 1.1 per cent. to 2.6 per cent. Hausmann[11] found approximately 1.2 per cent. amid nitrogen in true proteids, which was in accordance with the results of other investigators.

TABLE 6.—CALCULATED FOR THE GERM SUBSTANCE (10 gm. sample used).

Total nitrogen.	Amid nitrogen.	Per cent. of total N of germ as amid nitrogen
11.55 %	0.112 %	0.97 %

The total nitrogen of the germ was determined by kjeldahling samples of the germ powder. The per cent. of amid nitrogen was found from the fact that 0.0112 grams nitrogen was obtained from each of the three extracts from 10-gram samples.

TABLE 7.—NITROGEN OF THE PHOSPHOTUNGSTIC PRECIPITATES.

	1 %	5 %	33 1/3 %
Wt. ppt.	7.8220	12.8602	16.9792
Wt. N in ppt.	0.2014	0.3429	0.2029
Per cent. N in ppt.	2.575 %	2.667 %	1.197 %

The largest amount of diamido nitrogen was found in the precipitate from the 5 per cent. extract. It is probable that the 33 1/3 per cent. acid was strong enough to further decompose the diamido compounds and so lessen their quantity. In working for hexon bases a 5 per cent. acid extract might be expected to produce the largest yield. The per cent. of nitrogen in the precipitate from the 1 per cent. and 5 per cent. extracts were notably close together, and it is of interest that the 2.66 per cent. nitrogen found in the precipitate from the 5 per cent. extract was quite close to the 2.68 per cent. nitrogen calculated by Gulewitsch[14] in the phosphotungstic precipitate of arginin, but the carbon and hydrogen found were about twice what he calculated. His figures were C, 3.44 per cent.; H, 0.74 per cent., while we found C 8.34 per cent. and H 1.68 per cent.

TABLE 8.—NITROGEN OF FILTRATES FROM PHOSPHOTUNGSTIC PPTS.

	1 %	5 %	33 1/3 %
Total amt. of filtrate	200 c.c.	260 c.c.	260 c.c.
Wt. N in whole filtrate	0.0315	0.07189	0.36218

The largest amount of monamido nitrogen was found in the filtrate from the 33 1/3 per cent. extract; the smallest in that from the 1 per cent.

TABLE 9.—NITROGEN OF RESIDUE LEFT FROM THE ACID.

	1 %	5 %	33 1/3 %
Wt. residue from 10 gms. germ substance	3.9630	1.7322	0.7308
Wt. N in residue	0.4633	0.1924	0.0457
Per cent. N in residue	11.6900	11.1064	6.2631

The per cent. of nitrogen in the residues from the 1 per cent. and 5 per cent. acids was not greatly changed from that of the original germ substance (11.55 per cent.), which would seem to indicate that the residue was still undecomposed.

CONCLUSIONS.

From this research it may be concluded that there is present in the cellular substance of the *Bacillus typhosus* one or more compound proteid bodies, one of which, at least, seems to be of the nature of a phosphorized glycoproteid. Further, that proteid bodies are split off by the use of dilute acid, cleavage taking place regardless of the strength of the acid, so long as it is quite dilute; and that the total amount of this cleavage product which can be split off by dilute acid composes about 10 per cent. of the weight of the dry germ substance. And, lastly, that the cleavage of amido nitrogen by acid is definite regardless of the strength of the acid; that the largest amount of diamido nitrogen is obtained by the use of 5 per cent. acid, as compared with that obtained by the use of 1 per cent. and 33 1/3 per cent., while the largest amount of monamido nitrogen is found in the 33 1/3 per cent. acid extract.

THE CHEMISTRY OF BACILLUS COLI COMMUNIS.*

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In a previous paper[1] I have given a résumé of the literature on the chemical composition of bacteria, and a report of some preliminary work on the colon bacillus. This work demonstrated that the dried germ substance after extraction with alcohol contains 8.6 per cent. of ash, one-third of which ash is phosphorus, while sodium and potassium are the most abundant metals. Extraction with dilute sulphuric acid and treatment of the residue with a weak solution of sodium hydrate sufficed to bring practically the whole of the germ substance into solution. In the acid extract indications were found of xanthin and hexon bases, carbohydrate, much phosphorus and a toxic substance insoluble in alcohol. From the alkaline extract a nuclein body containing 2.93 per cent. of phosphorus was obtained, and evidence of carbohydrate was found. In these preliminary experiments the amounts were too small to admit of the purification and identification of the products, but they served to show several lines of work that could be profitably pursued. Along two of these I can report progress, although neither is completed:

Pure colon cultures obtained from feces were grown on 2 per cent. agar in the large incubating tanks used in this laboratory. After from seven to fourteen days the growth was removed, freed from agar, extracted first with alcohol and then with ether, dried and pulverized. This material was heated on the waterbath for an hour, with forty times its weight of 1 per cent. sulphuric acid, and filtered. The extract was poured into from three to five volumes of alcohol. The precipitate formed was washed with alcohol until the washings were no longer acid, then dissolved in water and reprecipitated with alcohol. When this precipitate first comes down it is white, flocculent and voluminous, but it darkens on exposure to the air so long as it is moist. With care it can be obtained as a light-colored powder. This substance holds moisture tenaciously. After standing for six months in a bottle with a glass cap, samples absorbed water in the process of weighing in an open watch glass. Small samples (0.5 g.) on watch glasses in vacuo over sulphuric acid dried to a constant weight in ten days, or in a weighing bottle at 98 degrees C. in from seven to eight days. Larger amounts heated for a few days at 98 C. and then in an oven between 105 and 110 C. required still longer time, and occasionally, but not invariably, showed signs of decomposition before becoming constant.

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[14] Gulewitsch: Ueber das Arginin, Zeit. f. physiol. Chem., 1899, xxvii, 178.

* See footnote to previous article.

[1] Trans. Assn. of Amer. Phys., 1902.

This substance liquefies on burning, gives off volatile products with the odor characteristic of nitrogen compounds, and leaves a dark residue. Hammarsten[2] says of the nucleins that they yield an acid coke containing metaphosphoric acid, which is consumed with great difficulty. Probably the same occurs here, and in burning the organic matter out of the liquid mass, some of the mineral constituents are volatilized. For this reason determinations of ash are unsatisfactory. An average of several estimations gives 30.74 per cent. of incombustible and non-volatile matter. The amount of inorganic matter is probably even higher, and includes the metals present in the organism as integral parts of the cell or taken up from the alkaline culture medium and from the tank. All these would be seized with great avidity by the acid used in the extraction. The sulphates thus formed appear in the alcoholic precipitate. The ash is not wholly soluble in either nitric or hydrochloric acid. It contains sulphate, as shown by barium chlorid and by the silver coin test, and also phosphate, as shown by ammonium molybdate.

Determinations of phosphorus in the ash by the molybdate-magnesia method show that 5.3 per cent. of the substance is phosphorus. Sulphur was determined by fusion with potassium hydrate and potassium nitrate and precipitation as barium sulphate. This element was found to be present to the extent of 9.22 per cent. Nitrogen determinations by the Kjeldahl method give 6.49 per cent. Comparing these figures with the results obtained from the germ substance, we have the result shown in Table 1.

TABLE 1.

	Ash	N	P	S
Germ substance.........	8.61	10.65*	2.87	none in ash.
Cleavage product.........	30.74	6.49	5.3	9.22
Cleavage product, ash free		9.40	7.68	....

* Air-dried samples not at constant weight were used for this determination.

This acid cleavage product dissolves in water giving an opalescent solution and is acid to litmus. The solution becomes clear and transparent on the addition of a trace of alkali. It gives a very slight biuret test, possibly due to a trace of proteid carried down with the precipitate. There is too much sulphate present for a satisfactory Millon test. Nitric acid reacts vigorously and gives a sharp xanthoproteic test. It gives a good furfurol test with a-naphthol, but does not reduce Fehling's solution either before or after boiling with HCl. The toxicity of this substance was discussed in the paper already referred to.

HEXON BASES.

Since a chain of six carbon atoms seems to be the favorite combination for the carbohydrates found in nature, it is certainly interesting that Kossel and others have found the open chain of six or five carbons in so many forms of albumin. For in animal metabolism a large part of the proteid is changed into carbohydrate, and as Cohnheim[3] suggests, this change can be most readily accomplished by oxidizing preformed chains of six carbon atoms. In view of Kossel's[4] theory that the three hexon bases, histidin, arginin and lysin, are fundamental constituents of proteids, and thus a necessary part of the molecule, it seemed desirable to determine their presence or absence in the bacterial cell, especially as I have found no record of such an investigation. To be sure, if tuberculosamin[5] is like other protamins, it contains hexon bases, but in the article cited there is no mention of this point. In the isolation of the bases Kossel and Kutscher's[6] method was followed with some modifications. The germ substance was boiled with acid for several hours. The xanthin bases were removed by addition of silver nitrate to the acid solution.[7] Histidin was precipitated by silver nitrate and barium hydrate to slight alkalinity; arginin by silver nitrate and barium hydrate to excess; and lysin by phosphotungstic acid.

In the first series of experiments at every step in the process, indications pointed to the presence of all these bases, but in the end, sticky hygroscopic substances were obtained, and these would not crystallize. In two sets of experiments frequent determinations of the amount of nitrogen in the solution were made by the Kjeldahl method; 173 g. of air-dried germ substance was boiled with nine times its weight of 33 1/3 per cent. sulphuric acid. This was filtered, and the residue boiled with water until the washings gave only a slight precipitate with phosphotungstic acid. The extract contained 18.37 g. of nitrogen; 10.62 per cent. of the germ substance, or 96.53 per cent of the total nitrogen in the germ. The residue contained 0.659 g. of nitrogen. After precipitating the extract with phosphotungstic acid there was left in the solution 9.655 g. of nitrogen, which is 5.58 per cent. of the germ substance; 50.73 per cent. of the total nitrogen, or 52.56 per cent. of the nitrogen of the extract. The phosphotungstic precipitate then contains 8.715 g. of nitrogen; 5 per cent. of the germ substance, 45.8 per cent. of the total nitrogen, and 47.44 per cent. of the nitrogen of the extract.

Following the common assumption that phosphotungstic acid separates the monamido from diamido compounds, these results can be expressed in Table 2.

TABLE 2.—DISTRIBUTION OF NITROGEN IN EXTRACT WITH 33 1/3 PER CENT. ACID.

	Grams.	Per cent. of Germ Substance.	Per cent. of Total N in Germ Substance.	Per cent. of N in Extract.
Germ substance........	173.	......	.....	......
N in extract................	18.37	10.62	96.53	100.00
N in residue...............	0.659	0.34	.....	......
Monamido N...............	9.655	5.581	50.73	52.56
Diamido N.................	8.715	5.04	45.8	47.44

In another series of experiments the nitrogen was determined at every step; 100 g. of germ substance was extracted repeatedly with 5 per cent. sulphuric acid.

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[2] Physiol. Chem., 1895, 87.

[3] Chemie der Eiweisskörper, 1900, p. 67.

[4] Ueber die Constitution der einfachsten Eiweisstoffe, Zeit. f. physiol. Chem., 1898, xxv, 166.

[5] Ruppel: Zur Chemie der Tuberkelbacillen; Zeit. f. physiol. Chem., 1898, xxvi, 218.

[6] Beiträge zur Kenntniss der Eiweisskörper. Zeit. f. physiol. Chem., 1900, xxxi, 165.

[7] Kutscher: Chemische Untersuchungen über die Selbstgährung der Hefe, Zeit. f. physiol. Chem., 1901, xxxii, 59.

TABLE 3.—DISTRIBUTION OF NITROGEN IN EXTRACT WITH 5 PER CENT SULPHURIC ACID.

	Per cent. of Germ.	Per cent. of Total N in Germ.	Per cent. of N in Extract.
Total N	10.65	.....	......
N in extract	9.58	89.99	100.00
Humin N	1.48	13.90	15.81
N removed by precipitation of:			
xanthin bases	0.464	4.36	4.84
histidin and arginin	1.726	16.21	18.01
N in solution for histidin	0.454	4.27	4.74
after precipitation with phosphotungstic acid	0.358	3.36	3.73
N in solution for arginin	0.657	6.17	6.86
after precipitation with phosphotungstic acid	0.223	2.09	2.33
N in solution for lysin	2.83	26.55	29.50
N in solution for monamido compounds	1.704	16.00	17.78

Comparing these two tables, the extract with 5 per cent. acid appears to contain a larger proportion of diamido compounds and a less proportion of monamido compounds, but the results were disappointing. The persistence of certain proteid reactions, the sticky, hygroscopic residue, that resisted all devices for crystallization, point toward the presence of albumose, peptons or similar bodies.[8] The various reagents also failed to give as sharp separations as they should were the hydrolysis complete; hence, the use of the weaker acid was discontinued, although it is possible that with longer boiling it would have sufficed. By repeated reprecipitation or after more vigorous hydrolysis crystalline compounds were obtained. In view of the discussion on the value of phosphotungstic acid in separating monamido and diamido compounds, as well as the difficulties which various investigators have encountered in obtaining crystalline products in searching for hexon bases, it is perhaps well to give these data.

The silver precipitate of the histidin fraction was decomposed, reprecipitated by mercuric sulphate,[9] decomposed again with hydrogen sulphid, treated with hydrochloric acid and concentrated. The silver precipitate from the arginin fraction was decomposed and treated with nitric acid. In both cases crystals were obtained which await purification and identification. The phosphotungstic precipitate of the lysin fraction was decomposed with barium hydrate, concentrated to a thin syrup and precipitated with alcoholic picric acid. Beautiful, slender needles were obtained corresponding in appearance and decomposing temperature to the data given for lysin picrate, and to lysin picrate from fibrin and gelatin. This picrate yields a chlorid corresponding in appearance and melting point to the chlorid of active lysin. This work will be reported in detail as soon as possible after its completion.

It is interesting to note the similarity between bacterial proteid and other proteids, as illustrated by this and other investigations. In my former paper it was suggested that the cell studied was made up largely of [illegible] With Aronson's[10] osazone from [illegible], the xanthin bases obtained by Nishimura[11] and others, and these crystalline products from the colon germ, have been obtained from bacteria, well-characterized decomposition products representing the three great complexes of this class of substances.

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[8] Hausmann: Ueber die Vertheilung des Stickstoffs im Elweissmolekule, Zeit. f. physiol Chem., 1899, xxvii, 95.

[9] Kossel and Patten: Zur Analyse der hexon Basen, Zeit f physiol Chem, 1903, xxxviii, 39.

[10] Zur Biologie u Chemie der Diphtherienbacillen, Arch. f. Kinderheilkunde, 1900, xxx, 23.

[11] Untersuchungen über die chemische Zusammensetzung eines Wasserbacillus, Arch. f. Hygiene, 1893, xviii, 318.

Anesthesia.—In many cases, more skill is required to give the anesthetic than to do the operation.—Stone, in *Colorado Medical Journal.*

INSUFFICIENTIA PYLORI.*

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Too long has the unfortunate opinion prevailed that a chronic dyspeptic is doomed to lifelong misery, if not, indeed, to suicide, which too often is the tragic finale to his existence. The recognition of insufficientia pylori as one of the causes of chronic dyspepsia is of paramount importance, as it leads to almost miraculously quick improvement. This is my opinion, based on over 50 consecutive and successful cases.

One hour after Ewald's test breakfast (I shall use here test meal and test breakfast as synonyms) the healthy stomach should yield from 30 to 50 c.c. of chyme, the solid part of which should be well pulverized and the fluid part very *thin. The chyme should readily* filter. Not always, however, do we meet such conditions. There are pathologic variations on either side of the normal, both as to quality and quantity.

NORMAL GASTRIC ACTION.

Insufficientia pylori is *the condition in which nothing* or possibly but 1 or 2 c.c. of chyme are aspirated one hour after the test meal; this is because the pylorus either does not close at any time or does so insufficiently *for a shorter period than is normal.* I shall beg your indulgence if I begin with the cause of the physiologic, clonic closing of the pylorus on introducing anything into the gastric cavity.

The presence of matter in the stomach causes its muscular fibers to contract, the degree of such contraction being in direct relation to the degree of the irritant. Normally, the exciting cause is not so great as to throw at once the entire stomach into one convulsive contraction, but the contraction begins at the fundus and travels toward the pylorus. While one band of muscle fibers contracts, the next band begins to relax. These successive contractions we call peristalsis. Let me say here, in parenthesis, that respiration has a decided influence on peristalsis; inspiration aids the motility of the stomach. When the peristaltic waves finally reach the end of the stomach, the pylorus, this likewise contracts, just as does the stomach. But, although the cause and the mechanism are identically the same, the effect on the pylorus is different from that on the stomach in general. The same cause and the same degree of contraction which produces in the stomach cavity but a diminution of its diameter, causes in the pylorus its entire occlusion. This is very readily explained by the difference between the diameter of the stomach cavity and the narrow lumen of the pylorus. The pylorus, having a very small diameter, needs but little contraction to occlude its entire lumen. No difference of force. cause or mechanism is required to explain the physiologic, clonic closure of the pylorus during gastric digestion. What produces general gastric peristalsis also produces closure of the pylorus; the closing of the pylorus must not be regarded as anything else than ordinary peristaltic contraction.

THE ABNORMALITIES.

Starting from these normal physiologic premises, we can reason that what will cause greater general contraction of the stomach will so *much more* intensify the closure of the pylorus, but as the general stomach cavity has a considerable lumen to contract on, while the same aggravated contraction reaching the pylorus has nothing more to contract on than its own anatomic structures, it is evident that such anatomic structures will suffer the consequences of such repeated and spastic contractions. Our knowledge of inflammation, its causes and its manifestations, would at once make us anticipate inflammatory changes of the pylorus under the conditions just mentioned. But, beside this, which I might call an intrinsic cause, there is the additional element of the violent impact of the chyme which is thrown against a closed pylorus by the aggravated contractions of the muscle fibers of the stomach. Thus we see two forcible factors for the production of inflammation of the pyloric portion. This explains why autopsies show, in by far the largest majority of cases, only the pyloric portion to be the seat of lesion. In fact, I believe we should be justified in discarding the name of gastritis in the majority of instances and substitute the name of pyloritis instead.

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* Read at Albany before the Medical Society of the State of New York, Jan. 26, 1904.

The muscularis of the stomach naturally has a muscular, hence a dynamic, function, and, in accordance with the work to be performed, varies its development. In the grain-eating birds, for instance, the muscular layer of the stomach is enormously developed, because the grains have first to be crushed before they can be acted on, chemically, by the digestive secretions. Likewise in man the stomach completes the grinding begun by the teeth. This is a fact which is attested by the very finely pulverized chyme so often aspirated from the stomach. But is this very finely pulverized chyme really the result of only dynamic, of only muscular, activity? Yes. This affirmative answer can be verified in both direct and indirect ways. I have many times experimented with artificial digestion, and although I did obtain all the chemical results, I never did get the solid parts finely pulverized until it was thoroughly stirred up with a clean glass rod. The clinical proof presented itself to me in a case of pyloric stenosis, in which I first ascertained that the stomach was empty before I gave the ordinary test meal. One hour after it I aspirated the entire ingested meal. and, notwithstanding that the general acidity was as low as 18 (even dimethyl scarcely reacted) the ingested roll was recovered in a very finely pulverized form. On the other hand, there are abundant clinical instances in which the chyme is coarse, although there are sufficient acid values.

These facts I consider beyond doubt to be entirely conclusive that finely pulverized chyme is the result of mechanical crushing. Crushing implies that the object to be crushed must come between two opposing forces—the driving and the resisting force. In the stomach the contracting muscle fibers represent the driving and the closed pylorus the resisting force. The stronger these two forces act on one another or the longer the grinding continues, the finer pulverized will be the crushed product. Again, the finer the pulverization the longer or the stronger was the muscular contraction, and the longer did the pylorus offer resistance. We therefore must admit that to obtain a very finely pulverized chyme the ingesta must be subjected to the action of the forces mentioned, sufficiently long, which means that the ingesta must remain in the stomach long enough to be acted on, dynamically, by the muscular contraction of the stomach. In the same manner the aspiration of a chyme which presents the very fine pulverization, termed by me the "floury layer," attests the existence of at least normal if not hypermotility of the stomach, and this irrespective of the quantity aspirated. Nay, as it needs a prolonged contraction of muscle fibers also of the pylorus. as it needs a longer closing of the pylorus to produce the "floury layer," it is evident that the closed pylorus also prevents the passing of chyme into the intestine; hence a larger quantity will be aspirated. The larger the quantity and the finer the pulverization the longer did the pylorus offer resistance, the longer was the pylorus closed. Since, however, a protracted closure of the pylorus could not exist without active peristalsis (as explained above), and since a prolonged closure of the pylorus obstructs the escape of chyme, and hence leaves more chyme to be aspirated, it follows that the aspiration of a large quantity in which the "floury layer" is present signifies that in such a stomach peristalsis was very active.

This is a view diametrically the reverse of what is at present recognized. We are taught that a stomach which yields a large quantity of chyme after the test breakfast is atonic. We have been made to believe that the presence of a large quantity of chyme after the test meal incriminates the integrity of the muscular power of the stomach; it is being assumed that because the ingesta did not pass the pylorus in sufficient quantities in the given time it is ample proof that the stomach wall, for some reason or other, has not attempted to expel its contents. With the same propriety we might accuse the prisoner of not attempting to come out of his cell. Supposing the cell is locked and bolted and all efforts of its inmate to get out of the cell are frustrated because of the door being locked? The tonus of muscular fibers is judged by its respective power. But when we aspirate a "floury layer," such facts prove muscular activity. To accuse a stomach of atony, which yields after a test breakfast a large quantity of chyme of which the solid part is very finely pulverized, is a crime. Such stomachs are not only not atonic, but the very contrary; they are hypertonic. The large quantities aspirated in such cases is due to the stenotic condition of the pylorus. This stenosis is, most usually, due to a pathologico-chemical condition. and which I described as "stenosis of the pylorus from irritation." It is peculiar and possibly significant that both Boas and myself have independently worked on the same theory at the same time. Boas in his article on Magensteifung[1] also refutes the present assumption that the aspiration of a large quantity of chyme after the test breakfast signifies atony. He also acknowledges a stenosis of the pylorus as the cause of the large aspirated quantity.

I again wish to impress that quantity does not impugn the integrity of the muscular coat of the stomach one way or the other; quantity is dependent on the respective condition of the pylorus. A prolonged contraction of the pylorus offers prolonged resistance to the escape of chyme from the stomach, hence a larger quantity will be aspirated. A pylorus, the contraction of which is lessened or entirely abolished, offers little or no resistance at all to the exit of the chyme, hence a much larger quantity of the ingesta will pass the portals of the intestines unmolested, unchecked, and hence little or no chyme at all will be obtained on aspiration. There is no increase of motility in this condition, as there is no impairment of the muscular activity when a large quantity is aspirated. The absence of chyme one hour after the test breakfast can not be ascribed to hypermotility, as hypermotility means hyperactivity, which is synonymous with hypercontraction, and hypercontraction, as explained above, must produce more spastic contraction of the pylorus. Hypermotility of the stomach, therefore, effects larger quantities to be retained in the stomach. The presence of a large quantity of chyme after the test meal means stenosis, the absence of chyme denotes insufficientia pylori. But very little peristalsis is necessary to bring ingesta past an open pylorus; mere gravity will do it. Furthermore, the absence of pyloric resistance has a decided negative effect on the grinding up of the ingesta. Because of the absence of one of the two forces, mentioned above as necessary for the grinding, because of the absence of pyloric resistance by reason of its non-closure or insufficient closure, the ingesta can not be acted on dynamically. and therefore it is. that whatever little is aspirated in the first stages of insufficiency is coarse.

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[1] Deutsche med. Wochenschrift, March 6, 1902.

Insufficientia pylori presents itself in several stages. It begins with a simple weakness, if I may use this expression, when possibly yet 1 or 2 c.c. of coarse chyme is aspirated and ends with its complete inability to contract. In this last stage the ingested food rushes immediately past the pylorus; the patient practically has no stomach. Between these extremes there are many gradations. We may not find any chyme at the end of one hour, but there may be some, three-quarters or half, or one-quarter of an hour after ingestion. and it is our duty to absolutely ascertain the exact condition.

ETIOLOGY.

Insufficientia pylori is the natural and logical successor to stenosis of the pylorus (I am not speaking here of the stenosis of an organic nature). It is but a question of time when the pylorus, too long insulted by spastic contractions and by the violent impact of food together with other chemical causes, will succumb to such maltreatment with the inevitable inflammation as the result. And once this is chronically established, we can easily foresee the consequences; that finally, in the very last stage, anadenia gastrica should result, need not surprise. Very seldom is insufficientia pylori the sequel of a retrograded neoplasm as described by Ebstein.[2] Directly, insufficientia pylori is caused by a chronic pyloritis. As remote causes are organacidia gastrica,[3] chronic alcoholism, loss of teeth and the gulping down of food.

SYMPTOMS.

Per se insufficientia pylori gives no symptoms, and it may exist for a long time without the patient being aware of it. What the patients complain of is due to faulty intestinal digestion; and usually the patients do not seek medical advice before the intestinal functions are interfered with. The most predominant and the most constant symptoms are due to gas formation in the bowels. This is variously interpreted by the patient as boiling, running around, shaking, heaviness. tension, sensation of bearing down, sensation of insufficient defecation. A woman about the climacterium thought she positively felt "quickening," notwithstanding her menstruation having been regular up to the time of her consultation. The appetite is variable, and may be good or absent, but there are definite causes for each. When the gases formed in the intestines are not irritant, then the distension causes anorexia. When the gases are volatile, fatty acids, then the attendant contractions of the upper part of the intestine due to the presence of such volatile acids, give the sensation of hunger. In the prevailing of the latter contingency, besides the very good appetite, will be diarrhea, cramps and rectal tenesmus, and, if the volatile fatty acids make their way through the upper passage, there will be burning along the route and thirst. Constipation is not infrequent, and I am now inclined to believe is due to distension of the bowel by non-irritating gases. Often constipation alternates with diarrhea, the diarrhea being subsequent to and caused by the constipation. The stagnating feces finally undergo putrefactive changes with the evolution of irritating gases, which then irritate the bowel, thus bringing on peristalsis. Headaches may or may not be present, but as yet I have not been able to ascertain the exact cause of each. The dictum that constipation and headaches invariably go together I can not corroborate, although it holds good in most instances. Flashes of heat and cold are very common, especially in the evening after the somewhat heartier meal, which the insulted intestines struggle to digest. It can be safely assumed that one who abuses his stomach will also abuse his bowels, if not warned in time. But often patients are not aware of serious gastric trouble or of any digestive interference. Occasional "spells" they take very lightly, often as a matter of course. The following case illustrates this:

> A young man, aged 28, a traveling salesman, had been coughing for some three years, during which time he consulted several general practitioners without being helped. Finally, being alarmed about his cough, he went to a prominent specialist on diseases of the chest, who, after the third visit, came to the conclusion that most likely the cough was caused by some disorder in digestion. The patient then came to me, rather surprised at the specialist's finding, as he could not remember any serious attacks of indigestion. That patient's stomach had already advanced to the condition of insufficientia pylori. His cough stopped permanently after the sixth day (he came for treatment every day).

Vomiting may or may not be present. Beside those there may also be other symptoms.

DIAGNOSIS.

Insufficientia pylori can not be diagnosed without a test-meal, nay, several test-meal examinations, one to follow the other one day after the other. Absence of chyme one hour after the test breakfast, or at most 1 or 2 c.c. of coarse particles, is the diagnostic criterion. The diagnosis should be corroborated by another test meal the very following day. In a tentative way the diagnosis may be assumed in cases of chronic alcoholism or in patients with few or no teeth. Neither sex nor age gives any clue. The diagnosis of insufficientia pylori having been made. it becomes our duty to ascertain exactly the patient's condition. The question, and a very important one, is, how soon is the stomach empty? Does the stomach functionate at any time, or has the patient practically no stomach? These questions are answered by aspirating the stomach at various times after the test breakfast is given. If the stomach prove to have no chyme one hour after the test meal, we next day aspirate three-quarters of an hour after the ingestion, or thirty, or even fifteen minutes after the eating. On this exact knowledge is based the successful treatment. When the case is properl[illegible] patient, he will usually corroborate [illegible]. If we can manage it all real medications should be stopped for a few days before our examinations. Of the physical examination only gastric inflation may be of some avail. In the last stages of insufficiency the stomach can not be inflated by any means. But one must be careful not to mistake a dilated stomach for insufficientia pylori, should he choose for inflation CO_2 developed in the stomach. The usual doses for inflating a stomach are half a teaspoonful each of bicarbonate of soda and of tartaric acid, each to be taken separately and in immediate succession with about two ounces of water. If these do not inflate we need not yet conclude on insufficiency.

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[2] Deutsches Arch. f. klin. Med., vol. xxvi.

[3] Medical Record, Sept. 6, 1902.

PROGNOSIS.

If not attended by too severe complications insufficientia pylori has an excellent prognosis, no matter how old is the patient or how long the disease had existed. I have seen cases, in my own practice and in consultation, in which the conditions prompted the gravest diagnoses and where improvement had been despaired of, respond almost miraculously to the proper treatment. A marked turn for the better is positively seen in a very few days, often even within a day or two after treatment has been begun. Patients who have suffered for years from chronic dyspepsia get well, gain flesh and change their melancholy into buoyancy and optimism in a very short time. Thus I had among my patients a colleague about 50 years of age, who until recently taught diseases of the stomach, and who had to give up his position because of ill health, greet me on the twelfth day after the test-meal examinations with a hearty hand shake, a broad and cheerfully smiling "How do you do," and a slap on my shoulders. This greeting needed little interpretation. My esteemed colleague had not a trace of chyme even half an hour after his test breakfast. The usual average for the treatment has proved to be about three months. Often the patients are inclined to overbear, exhilarated by the rapid success, and are tempted to do a little experimenting themselves. Against this the physician must guard. A return of the pylorus to the normal can only be expected in the young. I have seen this several times.

TREATMENT.

As everywhere else, the etiologic moment must be kept in mind. Alcoholism and gulping down of food will naturally be interdicted. It is much better to go without food than to swallow it down unmasticated. If circumstances do not allow the patient sufficient time for his meal, then let him have such food as needs no mastication. Mastication must at all times be complete. Loss of teeth must be supplanted by artificial ones. Especially to the poor must we explain the necessity of thorough mastication. But, as they can not always get a set of good artificial teeth, we must advise them to have the mastication done artificially. All cereals and vegetables should be well boiled and eaten in the form of puree. As to meat, my advice is to prepare it any way they like, and after it is done, to cut it up into very small pieces, which is best done by a meat-grinding machine, which is very cheap.

The dietetic treatment is of chief importance. The object is not to introduce any acid food nor food which develops gases. Let us also remember that sweets very quickly form acids in the digestive canal, consequently also these will be omitted from the dietary. Coffee, tea, spirits, fermented liquors, CO_2 containing waters, too much milk, cabbages, peas, beans, radishes, turnips, spices, salads, whole grain bread and other cereals with their husks (the easily fermenting cellulose) on, fruits, especially grapes, peaches, plums and prunes should be forbidden. Excluding these, the patient has a free choice of food but not of drink. Clean, filtered water and milk are about all the patient can have. Of mechanical treatment only lavage is to be mentioned if mucus is present. I have as yet not tried electricity.

The medicinal treatment must be directed to help the intestine, but at the same time not to interfere with any gastric digestion, which may still be present. It is for this reason that several test-meal examinations are necessary. We must know whether the stomach does have some digestion, and if so, we surely must not interfere with it by giving the alkalies too soon. Bicarbonate of soda, magnesia and the rhubarb and soda mixture are usually sufficient and to be given after meals, the time to be determined by the test-meal examination. So, for instance, if there is no chyme even fifteen minutes after ingestion of the test meal, then the alkalies should be given immediately after meals. If there is some gastric digestion yet a half hour after the test breakfast, then the alkalies will be given between half an hour and one hour after meals. If there is some gastric digestion still present, the alkalies should be given somewhat later when meat is eaten. Pancreatin and papain are very valuable, but we must be sure to get the fresh products; stale products are very apt to be decomposed and cause pain, colics and diarrheas. Strychnin is the drug never to be left out, but it must not be given in small doses. I never begin with less than one-twenty-fifth of a grain. Especially in the chronic diarrheas has the strychnin a magical effect. Cases in which there were daily ten to twenty watery discharges and which have lasted for years, in one case over eight years, have yielded entirely and permanently to strychnin in from three to four weeks. But in these cases the strychnin must be given in rapidly advancing doses. I repeatedly gave one-seventh of a grain three times daily.

For constipation sodium sulphate and liberal quantities of water are of most benefit. The sodium sulphate should be begun with one-half teaspoonful doses in a glassful of hot water half hour before meals; this dose should be diminished gradually according to requirements. When the drinking of large quantities of water is desired, it is best not to tell this plainly to the patient, as he will usually disobey. Any sort of drugs—and by far the most impressive are bitter drugs—can be given in drop doses every two hours in a tumblerfull of water.[4]

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THERAPEUTICS OF INSANITY.[*]

ORPHEUS EVERTS, M.D.
CINCINNATI.

Since the insane of Christian countries were rescued by the hand of science from the despotic barbarism of superstition, they have been treated rationally, if not successfully, as persons suffering bodily infirmities. The therapeutics of such treatment may be classified, for convenience, as medical, hygienic and disciplinary. Medical therapeutics consists of the administration of materials supposed to be curative of diseased conditions. That medicines administered to the insane are not always, but are, indeed, seldom curative, is a "huge criticism" of present states of knowledge respecting both disease and medicine.

Were man a rational as well as a reasoning being, it might not be exacting to require of physicians prescribing medicine for the insane to have some knowledge of the more intimate relation of function and manifestation to structure, in conditions of both health and disease, as well as a clear perception of the relation of drug-energy to physiologic activities before prescribing. But, considering the present state of knowledge—or ignorance, rather—of such ultimate biochemical facts as are still concealed in the arcana of organization common to the profession, physicians should not be criticised censoriously for prescribing for the insane as they do for others, empirically.

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[4] I refer the reader to my previous articles on insufficientia pylori in the Philadelphia Medical Journal, May 24, 1902, and in the New York Medical Journal, Oct. 4, 1902.

[*] A posthumous paper written for the Section on Nervous and Mental Diseases, New Orleans Session, 1903. It is the last production of its gifted author, whose death occurred June 19, 1903.

The general trend of empiricism in medicine is—as it ever has been—to antagonize physiologic by medicinal energy. Thus, in treatment of acute mania, manifested by increased mental and muscular activity indicative of excessive elimination of physiologic energy, medicines recognized as sedative are almost invariably prescribed. In the treatment of melancholia, manifested by diminished activity of organic processes, and corresponding indisposition to motion, mental or muscular, stimulants or tonics are as uniformly resorted to. Whether curative or not, in either case statistics should be able to determine.

Purgative medicines are given to the insane, as to other persons, without reference to mental symptoms. Insane persons supposed to be suffering a specific dyscrasia, now recognized as a cause of insanity, become the recipients—necessarily—of what is called "specific treatment."

When I assumed the superintendency of a large state hospital for the insane, nearly forty years ago, the principal drugs in vogue for the treatment of the insane were, leading the list of sedatives, that ancient and respectable drug, opium, and its derivatives, followed by conium, hashesh, hyoscyamus, belladonna, etc., to which potassium bromid, chloral hydrate, sulfonal, trional and other chemicals of great energy were subsequently added.

Of stimulants and tonics in use then were, leading the list, that ancient companion in respectability and use of opium—alcohol—variously embodied, closely followed by quinin, iron, arsenic, zinc and numerous bitter vegetable extracts, since supplemented with phosphorus and strychnia. Favorite purgative drugs were calomel, colocynth, rhubarb, Epsom and Rochelle salts, and various other cathartic or laxative materials.

Thus equipped, therapeutically, the insane were persistently medicated—as they have been ever since—along lines before suggested, of physiologic and medicinal antagonism; modified but little by the suggestions of science, nor entitled to consideration as illustrative of medical progress in any sense. Therapeutically, so far as medication is concerned, our treatment of the insane is not a day in advance of that of Hippocrates; the real and great benefit that the insane have derived from science having been physiologic, hygienic and ethical, rather than medicinal. In some respects, indeed, as an individual observer, I believe the insane are not as well treated, medicinally certainly, if history can be trusted, nor so successfully as they were fifty or a hundred years ago. It is true they are not now bled till they can not wag their tongues nor wave their arms because of loss of energy thus abstracted; nor intentionally mercurialized with the expectation of "attracting morbid activities from the brain to the mouth," as they were in the days of the immortal Dr. Rush. But they have been, and are being, narcotized with increasing frequency and profundity, to a degree of sedation more perilous—however deceptive in appearance—than was accomplished by the great American Sangrado's lancet.

Sound blood we know is not only essential to all healing processes, but is indispensable to continued functioning of all living mechanisms. It is, indeed, Nature's first, last and only trustworthy weapon of offense and defense in her maintenance of human existence. It can not, therefore, be either spilled or poisoned with impunity. Loss of blood, within certain limitations, may be more readily recovered from under favorable circumstances than repeated and profound intoxication is likely to be. In the one case new blood is rapidly supplied to repair loss; in the other, old contaminated blood has to be purified by slow elimination, often leaving permanent injury. The facility of administration of some of the more potent poisons, by the use of our modern, serpent-fanged hypodermic syringe, from which the most violent or obstinately unwilling patient can not escape, to be followed so soon by such charmingly happifying consequences, silence and repose, has greatly increased temptation to administer them, without serious or philosophic consideration. What relief, indeed, to the overwrought consciousness of friends, nurses and other inmates of a home or hospital ward a physician can give by a magic drop of virus instantly injected beneath a patient's skin, soothing almost instantly the maniac's rage, silencing his voice, and quieting his hyperenergized muscles into a semblance of "Nature's sweet restorer, sleep!" The practice is not curative, however, nor more than exceptionably justifiable in properly constructed and equipped hospitals for the insane. In private practice, the rights of others than the insane may justify such sedation, although not contributive to recovery. A wise engineer, when he finds his machine endangered by an excess of eliminated force, opens wide a valve and lets the superfluous energy escape, with no matter what shrieking and agitation. Nature—by which we mean the small fragment of the universe and such facts and phenomena as have become familiar to us—may not appear to be, at all times, supremely intelligent and rational; but, as a rule, it is safer to trust her than to antagonize her. We appeal with confidence to our own reasoning capabilities, as against Nature's conduct of affairs, forgetting that reason as an intellectual capability is as facile and potent in confirming error as it is in the establishment of truth.

Of stimulating or tonic medicines, as now administered in the treatment of the insane, but little need be said. So long as given in such quantities as do not offend the stomach or impair digestion, they are practically harmless, if not really helpful.

Purgative or eliminating medicines are generally useful in the treatment of the insane, as they are in the treatment of other classes of persons suffering derangement of physiologic functions. Preachers have often been censured for commendation of quack medicines. They do sometimes give good medical advice, as, for example, that given to a sick sister by a good Methodist parson, who, after praying at her bedside, left with her the injunction: "Put your trust in God and keep your bowels open!"

Hygienic therapeutics are in accordance with the suggestions of common sense or human experience, and modern science as well. The primary necessities of all living beings are: air, food, water—and, if human—light, warmth and exercise.

That the self-helpless insane should be environed with reference to all these requirements is a logical affirmation. That they are not, and can not be, so circumstanced in the ordinary homes of the people in this or any other country, is likewise true. Properly located and constructed public and private hospitals for the insane come as near to supplying all demands indicated as is practicable. Of these prime necessities the value of air and water, as to both quantity and quality, as related to health, is more likely to be underestimated than is that of less important items. Perfect ventilation and abundance of wholesome water commend a hospital more highly than any other characteristics. Without the actual presence of water, organization can neither be effected nor its functional capabilities maintained. It is safe to affirm also that much disease now attributed to auto-infection is sequential to widely prevalent neglect on the part of civilized peoples to make an intelligent use of water; internally more especially than externally.

Keeping one's skin clean is a decent and goodly thing to do. Our skins are so constructed, however, that even "dirt diseases" seldom effect entrance to vital organs through them. Mucous membrane—skin deprived of armor, its "coat-of-mail"—is at all times vulnerable. Keep it clean! Pure water is Nature's solvent and detergent, and should be employed as such with great confidence. In prescribing water for the insane, however, no influence of suggestion need be anticipated, such as attends the recommendation of celebrated mineral water to be drank at or from notable springs, on the part of fashionably neurotic invalids of a different class. The insane are, as a rule, too stupid or too conceited to be thus influenced. The high-sounding names of various baths, as advertised for effect, Roman, Turkish, Russian, electric and others, do not attract attention or inspire confidence or hope when appealing to the insane. And the fact is, that pure water, wherever found, is sufficiently medicinal for all physiologic purposes as a drink; and the modern rain bath of fully equipped hospitals is equal to all therapeutic necessities in the treatment of the insane. The uniform application of heat or cold to the whole surface of the body, at discretion, constitutes the therapeutic virtue of a bath, as warmth and moisture constitute a poultice, without regard to name or materials implicated.

Professional massage, Swedish-movement appliances and other things reminiscent of medical eccentricities of once important pretension as comprehensive systems of cure, may still appeal with some force to the credulous and hopeful, but not to the crazy.

Electricity has never been generally employed in the treatment of the insane, so far as I know. I am informed that electrical appliances are being introduced as part of the equipment of modern hospitals for the insane, but whether for use or display I do not know. I have had many psychopathic patients committed to my care who had been previously subjected to electrical treatment—ignorantly, for the most part, it is to be presumed—none of whom seemed to have been benefited, and some of whom seemed to have been seriously injured thereby. This fact, however, does not discredit the therapeutic value of electricity in the hands of qualified administrators; nor should it discourage anyone from endeavoring to learn more and more respecting its applicability as a force in the cure of disease. It is a phase, however, of universal energy so weird and so intimately associated with human notions respecting supernatural beings, that when exploited as an agent capable of performing miracles in curing disease, appeals so powerfully to the imaginative and superstitious. I have habitually regarded its common use as—if anything more than an "appeal"—doubtfully dangerous. As an appeal, the insane are not affected thereby.

Occupation, manual labor, so much insisted on as hygienically beneficial to the insane, is commendable as both useful and economical. It is applicable, however, almost exclusively, to the conditions of chronic insanity, conditions no longer necessarily pathologic, but because of which their sufferers are permanently impaired and incapable of independent social life.

The same may be said of amusements. Neither the maniacal nor the morbidly melancholy can be amused successfully. The psychic activities constituting the mental ego of the one are too eccentric, of the other too centric, to admit of diversion or entertainment. Nor have I ever known a person suffering from acute mania or melancholia benefited by travel, on either land or water.

Diet, as pertaining to hygienic rather than to medicinal therapeutics, justifies mention in this connection of a long list of fake-foods and pretentious "tissue-builders," liberally advertised by samples and literature, that, in my estimation, are more profitable to the producers than to the consumers. "Build up the tissues" is a high-sounding injunction without a suspicion of commercialism in its tone. One might think, on hearing it announced as from an oracle of science, in connection with recommendations of these new-fangled products, that all a physician need to do in order to induce or compel Nature—however crippled or exhausted her forces—to resume constructive labor and "build up the tissues" is to administer any one of a number of "predigested," "peptonized," "malted" or otherwise hocus-pocus foods; or some chemically composed pabulum so nearly protoplasmic as to build tissues itself without Nature's co-operation or consent. If one trusts the "true-seeming lie," as the red-cross knight did the "false-fair dream" that the magician Archimago compelled Morpheus to forge and send for his deception, as related in Spencer's "Fairie Queen," he will eventually awake from the delusion a wiser if not a better physician.

Disciplinary therapeutics, in the treatment of the insane, is second only in importance to hygienic helps. Loss of self-control and loss of moral sensibility are characteristics of insanity. To meet necessities incidental to such conditions, more or less restraint is essential to the welfare of the insane, and that of others entitled to protection from them. The question of to-day is, as it ever should have been, not one of non-restraint, but of what method of restraining should be adopted for the welfare of all concerned. To say the insane do not require restraint is to say they are not insane, or that they are capable of exercising the rights or privileges of free citizens, an inference whose rationale the very existence of numberless hospitals for their custody as well as cure emphatically denies.

There are three methods of restraining the insane. One is by mechanical appliances; another by the administration of paralyzing medicine; and a third by moral influences. Of these methods, moral influences are sufficient for by far the greater number. In hospital practice the sense of restraint that falls like a shadow from hospital facades and towers on persons committed to hospital care, still capable of some appreciation—ethical and esthetical—is both efficient and salutary. There are exceptional persons, however, who, because of pathologic conditions, are incapable of recognizing moral influences of any kind. Noisy, destructive, belligerent, homicidal and restless, what shall be done with them? The choice is between mechanical and medicinal means. Restraint by the hands of attendants is as distinctly mechanical as is that by a camisole or a protection bed, and much more exasperating to the patient. Medicinal restraint, I believe, at the present time has displaced to a great extent mechanical appliances in public and private hospitals in this country and Europe. Modern psychiatry has been persuaded or driven by a tidal wave of pseudo-philanthropy, started by the popular acclamation attending the reform inaugurated by Dr. Pinel in France and Mr. Tuke in England late in the eighteenth century, to abandon mechanical appliances for restraining the insane—nominally if not really—under all circumstances. This "great reform," however, like all other sentimental movements looking to the accomplishment of social, political, moral or religious ideals, in the promotion of which important factors of the problem determining the limitations of practicability are generally left out of consideration, overleaped itself and defeated its own ends. That there was demand and occasion for modification of old practices, including needless mechanical restraint, there can be no question. That prohibition of mechanical means, instead of regulation within legitimate limitations, was an error, is to me equally apparent. The inevitable substitution of chemical narcosis, or physical force attended occasionally, however ordinarily concealed, by scandal, can not be said in the full face of facts to have justified the boast or the claim of beneficence to the insane, as a consequence. The outside world approves, unquestionably, of the transition. The outside world judges from superficial appearances, not from carefully observed and analyzed facts; the fact, for instance, that this transition from mechanical to other forms of restraint—especially the narcotic form—has been attended by marked diminution of the ratio of recoveries to the number of insane persons admitted to the hospitals of this country and Great Britain.

There may be other factors in the problem, but none so conspicuous or so suggestive. If, as is now believed, much insanity is attributable to auto-intoxication, what should be rationally expected from repeated and profound intoxication of persons already impaired, mentally, by chemicals capable of obliterating consciousness by paralyzing its mechanism?

It was not my purpose, however, to reopen this ancient burr; nor do I wish now to go on record in this, my last contribution to the literature of psychiatry, as an "old fogy," opposed to whatever is new or progressive. "Ancientism" has never been a feature of my religion, nor is it now. Looking before and after, it has ever been my habit to endeavor to see things stereoscopically as far as practicable, recognizing the fact that the wisest of mankind are not infallible, nor the best free from error.

Revulsion Treatment of Vomiting in Pregnancy.—Dumas applies revulsion to the breasts to divert to this point the tempest in the uterus. He believes that the close connection between the breasts and the genitalia is sufficient to explain the prompt benefit derived. He describes his technic in a communication to his local paper, summarized in the *Journal de Méd. de Paris* of March 6, 1904. He prefers cupping for the purpose, using a semispherical cup that fits airtight over the breast, with a rubber bulb to aspirate the air. The cup must be large enough to avoid all contact with the breast except at the base. He applies it morning and night and leaves it in place on each breast for twenty-five to thirty minutes. He suggests that this revulsion to the breasts might be found useful also in chlorosis or disturbances accompanying puberty.

THE ULTIMATE RESULTS OF THE BLOODLESS REPLACEMENTS OF CONGENITALLY DISLOCATED HIPS.*

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In selecting the subject of this paper I have been actuated by divers motives, but chiefly by the hope that a straightforward presentation of the facts, insofar as I have been able to obtain them, may correct certain delusions and false impressions that have crept into the minds of medical men and others, mainly through uninformed writers of sensational newspaper articles.

For the past five years no subject in orthopedic surgery has been of greater interest to me than this one—the bloodless replacement of congenitally dislocated hips. For the past three years no operation has been more generally discussed by the profession and the laity. No subject has been more persistently misrepresented by the lay press and, I regret to say, by the editorial writers of the medical press, and more thoroughly misunderstood than the results of this operation. Enough hips have now been operated on and enough time has now elapsed to give us a fairly accurate knowledge of the facts. These facts are what we wish to consider.

When the results from any operation are found to be quite different from the assertions of its advocates and the expectations of the profession it is likely to be unjustly condemned, and a humane means of relieving misery and suffering is likely to be lost to the world. Professor Lorenz, in [illegible] that the death of a patient be kept out [illegible], once said to me: "They have raised me up far beyond my deserts; if they learn of this they will cast me down equally far below my deserts." So with this operation. It has been raised up, mainly by the newspapers, far beyond its deserts. Some day, I fear, it will be cast down far below its deserts, unless the facts be made known and the failures freely admitted by those who practice the operation and believe in its utility.

That my paper may not be misunderstood—that I may not be misunderstood—let me say at once that I practice this operation in every suitable case; that I believe it is the best operation for all operable cases, and the only operation to be seriously considered in all bilateral congenital dislocations at the hip. The fact that the number of perfect anatomic replacements is few—far below what has been claimed and hoped for—should no more condemn this method than the fact that no cases of true scoliosis are perfectly straightened should condemn the treatment of scoliosis. We did not condemn excision of the breast for cancer when the ultimate mortality was 90 per cent. The operations, in selected cases, were generally successful, but the patients almost invariably died sooner or later from recurrence of the disease. No more should we condemn the operation of bloodless replacement if it should chance to appear that the perfectly stable anatomic replacements do not amount to more than 10 per cent. to 20 per cent. of the cases operated on. It is just simply unfortunate that Lorenz has claimed, or that we have understood him to claim, 80 per cent. "good results," and more than 50 per cent. "perfect anatomic replacements." It is greatly to be regretted that the people have been led to expect perfect results, as the rule, for they are awaking to bitter disappointment, and unjustly condemn earnest and skillful operators, if the operators chance to be honest men who admit the facts as to the results they obtain.

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* Read before the New York Academy of Medicine, March 3, 1904. A report of this meeting will be given next week

The results which I have found and set down in this paper will, I trust, be an encouragement to those operators who have doubted their own skill, and, I hope, may prove of use to some surgeons in convincing their patients that the results they have obtained are at least reasonably good.

In a paper dealing with the ultimate results of the bloodless reduction of congenital dislocation at the hip, I do not feel called on to discuss the development of this operation. While Ochsner credits all that is valuable in the operation to Lorenz, Davis would ascribe the credit to Paci of Pisa. To quote from Davis' paper—a paper that contains the most historic value and the fairest estimate of the situation of any that has appeared—a description of Paci's operation may be permitted. It is as follows:

> Flex the thigh well on the abdomen and press down on the knee to bring the head beneath the acetabulum; slightly abduct the femur; rotate outwards while increasing the abduction and bring the limb slowly into extension, stopping short of the point at which relaxation occurs. In attempting this method Lorenz, not being satisfied with his results, resorted (contrary to Paci's teachings) to extreme force. In 1895, the year following the congress at Rome, he advocated powerful screw extension, internal rotation, and fixation in abduction. Later in the same year he advocated flexion at a right angle; forced abduction, supplemented at times by powerful manual extension (he abandoned instrumental extension) and fixation in a markedly abducted position in plaster, and allowed the patients to walk about instead of confining them to bed for four months, as did Paci. This he called his "belastungs," or functional weight bearing method, and Royal Whitman states that the utilizing of the weight of the body to form a new socket is the essential and vital distinction from the forcible correction of Paci, with which it is often confounded. It is but just to Max Schede to state that he had been using for 15 years the weight of the body for this very purpose. Lorenz claims to be the originator of a new method of reposition, as well as of retention. He modified Paci's procedures, whether advantageously or not remains to be seen. His most marked departure was the use of great force. Finding he did not obtain immediately by Paci's manipulations the result he desired he proceeded to force its accomplishment. When the adductors prevented abduction he deliberately tore them by overstretching; when the head would not come down he put on screw extension or manual pulling by two or three assistants; when the head would not come forward he put the trochanter on Koenig's block to increase the effectiveness of the abduction and extension.
>
> Outside of the use of excessive violence, extension, increasing the abduction and tearing of the muscles, the method remains one of circumduction like Paci's. Of these four modifications, the excessive violence has already and is still giving such deplorable results that it is certain to be modified or abandoned. Lorenz himself has given up his screw extension. Extension in many cases is unnecessary, and need never be violent. Its place is not under chloroform narcosis, but when the patient is in bed by means of weights. I fail to see the advantage of tearing over tenotomy. The formation of hematomas, from the middle of the thigh to the umbilicus, sloughs and abscesses which have accompanied the practice do not commend it to me.
>
> In using Koenig's block beneath the trochanter it is a simple substitution for the hard roll of Pravaz and the edge of the table as used by Paci for the same purpose. In many cases the use of the hand alone suffices. Paci himself apparently used such forcible abduction and extension as to fracture the thigh in one case, and this shows that he abducted and extended as forcibly as was justifiable. For these reasons I can not see anything peculiar to the Lorenz method of reposition except violence, and if only a moderate and justifiable amount of force is used the bloodless reposition is that of Paci, and should be so called. The papers of Paci at Rome in 1894 were followed by Lorenz's book in 1895, and the method of forcible reposition was taken up and practiced more or less all over the world.

The cases I have to report have been divided into four groups: 1, Those observed by me in Chicago before my first operation of bloodless replacement; 2, those observed by me from the time of my first operation, July, 1897, to the advent of Lorenz, October, 1902; 3, those examined or operated on by Lorenz that I have notes on, or that I have been able to obtain reliable information about; 4, those operated on by me and all others examined by me since Oct. 12, 1902. These four periods may, perhaps, be characterized as the period of indifference, the period of interest, the period of delirium, and "the morning after," when things look so differently.

CASES IN FIRST PERIOD.

The first group comprises the cases from the first seen by me in Chicago on February 28, 1894, to my first bloodless replacement in July, 1897. There were 10 patients; 12 dislocated hips. All were girls. The ages were from 15 months to 11 years; 5 were right hips, 7 were left; the shortening was from one-half inch to 2½ inches. I have been able to trace only two of these cases and learn their present condition. Case 3 was a girl 5 years old, with left dorsal dislocation and three-fourths of an inch shortening when first examined by me Feb. 15, 1895. She afterward went to an advertising orthopedic institution, and for three years was treated by a traction hip splint on which she was allowed to walk. Now, Jan. 29, 1904, four years after the traction brace was discarded, she can, in standing, fully compensate for two inches actual shortening; she has free abduction and hyperextension, and walks with not a bad limp.

The other, Case 10, was a girl 7 years old, with dorsal dislocation of the left hip. She was referred to me by an eminent neurologist from an eastern city as a case of infantile paralysis. She had been treated for two years by electricity, and had been examined in consultation by an eminent orthopedic surgeon of the same city. The parents rejected my diagnosis, and even refused for two years to have an *x*-ray picture made to settle the matter. Then when the diagnosis was finally settled by a skiagram they refused operation until Professor Lorenz came. At that time the child was 13 years old, a large, strong girl. There was real shortening of about 2½ inches, and practical shortening from flexion and adduction of about 5 inches. Professor Lorenz, after examination, said replacement was not possible, nor was transposition, but advised tenotomy of the flexors and adductors and putting the limb in an improved position and retention for a long period in a leather splint, while massage and active and passive exercises were given to insure the maintenance of the new position. On advice of surgeons in Germany this operation was rejected.

The cases in detail are as follows:

GROUP 1.

No.	Sex.	Age.	Hip.	Shortening.	Examined.
1.	F.	2 yrs.	L.	¼ in.	Feb. 28, 1894.
2.	F.	18 mos.	R.		June 20, 1894.
3.	F.	5 yrs.	L.	½ in.	Feb. 15, 1895.
4.	F.	6 yrs.	L.	1½ in.	May 27, 1895.
5.	F.	11 yrs.	L.	2 in.	July 1, 1895.
6.	F.	8 yrs.	B.		April 29, 1896.
7.	F.	10 yrs.	B.	2½ in.	Sept. 2, 1896.
8.	F.	4 yrs.	R.	1 in.	Nov. 23, 1896.
9.	F.	2 yrs.	R.	¾ in.	April 27, 1894
10.	F.	7 yrs.	L.	1⅛ in.	

OPINIONS OF VARIOUS OPERATORS.

The second period runs from my first bloodless replacement in July, 1897, to the first operation in this country by Prof. Adolph Lorenz of Vienna, on Oct. 12, 1902, and comprises 40 patients with 51 dislocated hips. During this time, in fact, at about the middle of this period, in November, 1900, I became sufficiently interested in the subject, the reduction of congenital dislocations at the hip, to write to many of the eminent orthopedic surgeons of this country, asking for their experience and opinions; and later I visited New York and Boston. Some of the replies are interesting reading.

Dr. Harry M. Sherman, San Francisco, wrote on Dec. 11, 1900:

> I have had only one of the bloodless plan that "stayed put." I believe there were about a dozen that were "put." With that case I am satisfied. . . . I do no more bloodless operations.

Dr. A. M. Phelps, New York, wrote on Nov. 19, 1900, that he had operated on several cases, but he did not say whether or not it was by the bloodless method. However, when I arrived in New York he had no cases to show me. They were all in the country or had been lost sight of.

Dr. E. H. Bradford, Boston, wrote on Nov. 25, 1900:

> All my cases of congenital hip reduced bloodlessly [he had reported on 44 hips in 34 patients[1]] have relapsed, except one about which I am doubtful. It is now two years since the operation, and I have an *x*-ray that is being developed. It seems to me that the hip has slipped since the previous examination three months ago.

I had an opportunity to examine the *x*-ray negative a few days later, and the replacement appeared to me to be a perfect one. Dr. Bradford had just returned from the International Medical Congress at Paris, and in the letter from which the foregoing is quoted, he further says:

> At the Paris congress an animated discussion on the bloodless and the operative measures was conducted by Lorenz and Hoffa. Each had cases which they operated on before the congress. The bloodless method, as carried on by Lorenz, has certain successful cases, but according to his own statement, as well as those of other surgeons, there is a percentage of relapse. According to Hoffa it is a very large percentage.

Drs. Shaffer, Gibney, Sayre and Hibbs of New York had had no cases of bloodless replacement in November, 1900, and Dr. Townsend of New York had only two, recently operated on.

Dr. H. Augustus Wilson, Philadelphia, had no successful cases, and knew of none in Philadelphia, on Nov. 17, 1900.

At the meeting of the American Orthopedic Association in New York, May 31 to June 2, 1899, Dr. Royal Whitman reported 32 operations on 22 hips in 21 patients. Three were cured; 5 were still under treatment; 1 was a failure; 1 could not be traced; 1 discontinued treatment; 8 were "transposed"; and 2 had had the open operation performed. It is not stated whether these two cases on which the open operation was performed were transpositions, relapses or failures by the bloodless method. It should be noted that only one of these 21 patients had both hips dislocated, and this case was still under treatment at the time of the report. It should also be remembered that it is more difficult to obtain perfect results in bilateral than in unilateral cases. Dr. Whitman mentions incidentally two cases operated on by Dr. Gibney, but in November, 1900, Dr. Gibney stated to me verbally that he had had no successful cases by the bloodless method.

In November, 1900, Dr. Whitman was able to give me the names of three other cured cases; two were unilateral and one bilateral. I looked up the bilateral case and found, in a child operated on when about 18 months old, a perfect anatomic replacement on one side and an anterior transposition, or what Lorenz calls "a good result," on the other side. Whitman's first operation was in July, 1896. He had operated on 22 hips by June, 1899, with three perfect replacements. From that time to November, 1900, I do not know how many he had operated on, but he had added three more cases to his list of perfect results. This you will realize, as I go on with my report, is a very creditable showing.

EXPLANATION OF TERMS USED.

Before considering the cases of this group and figuring the results, it may be well to consider the meaning of the terms used to characterize the results. By a failure, I mean that the operator has failed to apparently replace the femoral head in the acetabulum; and that he has also failed to effect anterior transposition. By "apparent replacement" I mean the condition which is usually demonstrated as a perfect replacement by the operator; where the sensation, and often the sound of the femoral head passing over the rim and into the acetabulum is present, together with shortening of the hamstring muscles showing that the head has descended from its original site and is resting more or less securely at a lower point. Lorenz regarded this symptom of shortening of the hamstrings as diagnostic of replacement, but Wilson of Philadelphia has demonstrated, postmortem, that this symptom may be present when the femoral head simply rests on the contracted opening of the cotyloid ring, and is in no sense in the acetabulum. This ought to have been obvious to all of us, but was not, before Wilson made his demonstration, for we have all observed, after the replacement has apparently been made and the thigh is in right-angled abduction and flexion, that, if we bring the limb downward toward its fellow, reducing the abduction and flexion, the femoral head sooner or later will slip from its resting place and pass up to its original site. If it slipped from its resting place easily we have said that the acetabulum was shallow; that it would be difficult to hold the replacement; that a perfect anatomic replacement might not be the result, and that we might only succeed in getting a good result. And by "a good result" we mean an anterior transposition. If, on the other hand, we found it possible to reduce the abduction to within 10 to 20 degrees of the normal, we have said that the acetabulum appeared to be a good one, and that the result would most surely be a perfect anatomic replacement. If the femoral head never really enters the acetabulum at the time of the operation, and at best only rests more or less deeply in the opening of the narrowed cotyloid ring, the phenomenon of slipping out more or less easily, or with more or less difficulty, but always slipping out when the limb is sufficiently adducted, or rather when the extreme abduction has been sufficiently reduced, is obvious. All the skiagrams I have seen taken immediately after the replacement have shown the femoral head some distance away from the bottom of the acetabulum, and it appears to me very doubtful if a perfect anatomic replacement is ever accomplished at the time of the operation. I trust, then, that you will permit me the use of the term "apparent replacement."

Of the cases apparently replaced at the time of the operation, a certain number ultimately result in perfect anatomic replacement. This has been questioned, but it is a proved fact—proved by Paci at the International

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[1] Boston Med. and Surg. Jour., Oct. 25, 1900.

Medical Congress in Rome in 1894, where he presented the pathologic specimen of a case operated on by Notta, and proven also by the case reported by Edward Ochsner.[2] A considerable number of cases ultimately turn out "good results," that is to say, anterior transpositions, the femoral head lying to the front of the acetabulum, sometimes very near and sometimes far from the socket. If the head lies near the socket, and if it remains secure in its new position all of the characteristic deformity of congenital dislocation is effaced, namely, the shortening, the insecure step, the lordosis, the flexion and the adduction; it is a good functional result; only full inward rotation and full flexion are lacking. But if the anterior transposition is extreme, and unfortunately in some cases where it is not extreme, the femoral head gradually passes upward until it may be said to have relapsed into a supracotyloid dislocation, with shortening, outward rotation and insecurity. And, finally, some of the cases of anterior transposition suffer complete relapse by the femoral head passing upward and backward into its former position on the dorsum of the ilium.

By a supracotyloid displacement I mean a result where the limb is short, the greater trochanter displaced upward, and the femoral head can be felt above the acetabulum, anteriorly when the limb is rotated outward and posteriorly when the limb is rotated inward.

By an "improved position" we mean that the limb has been abducted, and thereby apparently lengthened, and the femoral head perhaps advanced somewhat, and the deformity due to the flexion, adduction and false shortening has been corrected, more or less completely, and that patient stands and walks in an improved position.

By a "perfect replacement" is meant a case where the femoral head, on palpation, can be felt no more distinctly in front, at the back, or above the acetabulum than in the normal hip; where there is no shortening, or not more than one-fourth of an inch; where the skiagram shows the femoral head as deeply within the acetabulum as normal, and where a final observation has been made at least six months after the removal of the splint.

Having explained the meaning of the terms used in discussing the results, it may be proper to speak briefly of the accidents that may befall one in making this operation. They are: Paralysis from overstretching; fracture of the neck of the femur; fracture of the shaft of the femur; fracture of the ramus of the pubes; fracture of the ischium; tearing of the perineum; rupture of the femoral artery; gangrene from cutting off the circulation through stretching the femoral vessels. There may be others, but these are sufficient for the surgeon who has experienced one or more of them.

SUMMARY OF CASES IN SECOND GROUP.

In the second group there were 40 patients, with 51 dislocated hips, 20 right hips and 31 left; 36 were girls and 4 were boys. Their ages were from 18 months to 13 years. The shortening was from one-half inch to 4½ inches.

Of these 51 dislocated hips, 24 were operated on, 12 rejected and 15 refused operation. Of the 24 operated on, there were 5 failures, 5 relapses, 1 supracotyloid displacement, 2 anterior transpositions, 2 perfect replacements and 9 apparent replacements. It is very likely that a large proportion of these 9 apparent replacements would be found to be either anterior transpositions or supracotyloid displacements could they be traced and radiographed.

Of the 5 relapses and 5 failures, 1 was subjected to Hoffa's cutting operation, and of the remaining 9, Lorenz operated on 5, with what result you shall see later. All the cases were dorsal dislocations except one, which was upward and forward.

In detail the cases are as follows:

GROUP 2.

Case 11.—Female, aged 10 years; left hip; shortening 2 inches. Operated on July 1897. Last examined Aug. 29, 1898. Apparently perfect result. This was my first operation and was made with considerable timidity. I was satisfied with getting the impulse of the head slipping into the acetabulum, and did not sufficiently stretch the adductor muscles. The case relapsed and was replaced in December, 1897, and again in February, 1898. On removal of the splint, Aug. 29, 1898, the replacement was apparently perfect. I am unable to trace the case and do not know the ultimate result.

Case 12.—Female, age 4 years; right hip; shortening 1 inch. Operated on Sept. 28, 1897. The plaster splint was worn nine months. A year later, June 14, 1899, the hip was apparently in place; there was a ⅛-inch shortening, and the patient walked without a limp. Three years later Dr. T. A. Davis presented the case to Professor Lorenz, and he operated. Some eight months later Dr. Davis removed the splint put on by Lorenz, and the femoral head at once slipped from its resting place in or near the acetabulum. Dr. Davis replaced the head and put on another plaster splint. The present condition is unknown; the parents refuse to permit an examination or a skiagram. The child walks with a limp and probably has a supracotyloid dislocation.

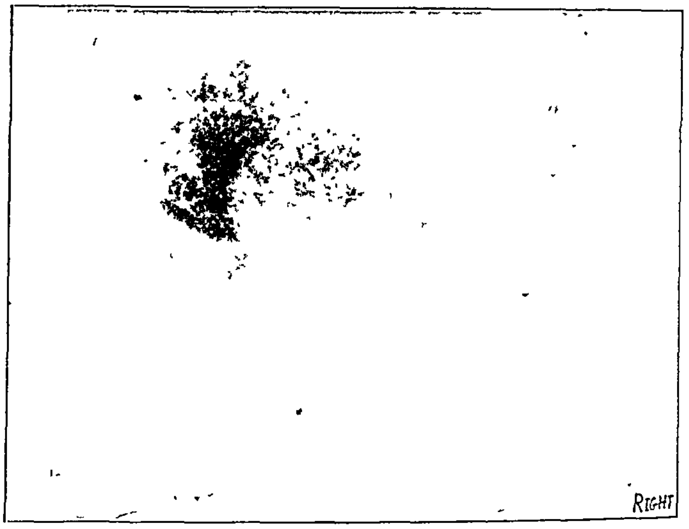

Fig. 1.—Case 18. Operated on by Ridlon. Relapse after four months Same as Case 91. Operated on by Lorenz. Skiagram after relapse and a year before Lorenz operated. See Figure 2.

Case 13.—Female, age 3 years; left hip; shortening 1¼ inches. Refused treatment.

Case 14.—Female, age 8 years; left hip; shortening 1½ inches. Operated on Feb. 9, 1898. Hip apparently in place when removed to Cook County Hospital, June 3, 1898, for diphtheria. Can not be traced.

Case 15.—Female, age 6 years; left hip; shortening 1 inch. refused operation.

Case 16.—Female; age 3 years; left hip; shortening ¾ of an inch. Operated on March 21, 1898. At the end of 13 months, when she passed from my care, the head was apparently in place; there was ⅛ inch shortening, and she walked with scarcely a limp. During the following winter she was treated by an osteopath for three months. I was permitted to examine the child 19 months after she passed from my care. There was a ⅝ inch shortening and the head could be felt above the acetabulum. The parents, trusting to the assurances of the osteopath that the hip was in place, refused to have a skiagram made and refused to believe that relapse had occurred. Two years later Professor Lorenz operated. The replacement was effected with ease for a seven-year-old child, as easily as most primary replacements in children of four. The acetabulum appeared to be good; and a perfect replacement was prognosticated as the ultimate result. When the plaster splint was removed some eight months later Professor Lorenz told the child's father that the head was in anterior transposition. This case illustrates the difficulty of prognosticating the final result at the time of operation.

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[2] Annals of Surgery, August, 1902.

Case 17.—Female, 2 years; left hip; shortening ¾ of an inch. Operated on Oct. 20, 1899. Apparently perfect thirteen months later. Can not be traced.

Case 18.—Female, 20 months; righ hip; shortening ¾ of an inch. Operated on Oct. 18, 1898. Relapse. (Fig. 1.) The child's mother has bilateral congenital dislocation of the hips. Oct. 17, 1902, Lorenz operated. (Fig. 2.) When the plaster was removed in May, 1903, the femoral head was found in anterior transposition. Since then it has become supracotyloid, and there is ½ an inch shortening.

Case 19.—Female; age 3 years; both hips; shortening 1 inch. Refused operation.

Case 20.—Male, age 6 years; left hip; shortening 1¾ inches. Operated on March 31, 1899. Failure Later I assisted Dr. L. L. McArthur in making Hoffa's cutting operation. The wound became infected, and the ultimate result was a stiff hip, with adduction deformity and practical shortening as great as the actual shortening had been before the operation

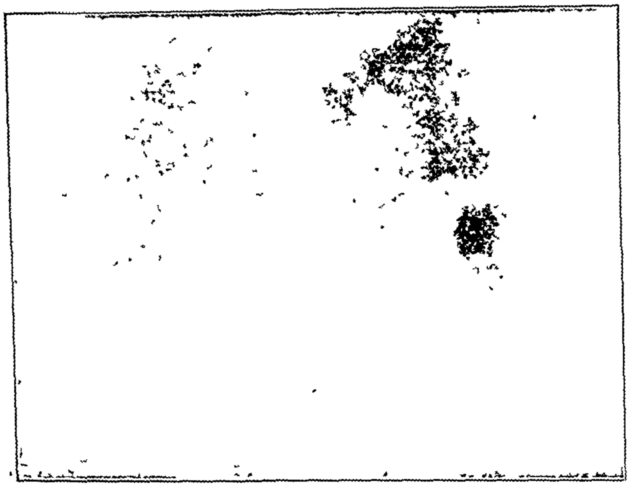

Fig 2—Cases 18 and 91 Operated on by Lorenz Apparent replacement Found anterior on removal of splint

Case 21.—Female, age 12 years; both hips; 2½ inches. Rejected

Case 22.—Female, age 8 years; left hip; shortening 1¾ inches. Two operations by me; both failures. Dr. Christian Fenger had previously made several unsuccessful attempts Nov. 26, 1902, when the child was 11 years old, after 4 weeks preliminary weight and pulley traction in bed, Lorenz operated, but failed to replace and failed to transpose. The adductors were freely torn, and the limb put up in the abducted position. At the end of 8 months the mother removed the plaster splint, and since then the child has had no treatment.

Jan 18, 1904, there was 2¼ inches actual shortening, but only about ½ an inch practical shortening, so free is the abduction and so good the compensation by dropping the hip She walks on the ball of her foot without high shoe, and with very little limp.

Case 23.—Female, age 5 years; both hips; shortening 1¼ inches. Refused operation.

Case 24—Female; age 12 years; both hips; shortening 2¼ inches' Rejected.

Case 25—Female, age 6 years; left hip; shortening ½ an inch. Operated on Oct. 2, 1899. Reported perfect six months later by Dr. F. C. Test. Can not be traced.

Case 26.—Female, age 6 years; right hip; shortening ¾ of an inch. Operated on Oct. 11, 1899. On July 12, 1900, the femoral head was in anterior transposition.

Case 27.—Female, age 6 years; left hip; shortening 1¼ inches. Operated on Nov. 22, 1899. Failure.

Case 28.—Female, age 9 years; left hip; shortening 1½ inches. Operated on Dec. 13, 1899. May 25, 1900, apparently perfect. Jan. 22, 1904, there was found to be supracotyloid dislocation, with 1½ inches shortening. She walks on the ball of her foot, without a high shoe, with little limp, and can fully compensate when standing. Figure 3 shows an acetabulum too shallow to be of any use.

Case 29.—Female, age 7 years; left hip; shortening 1⅞ inches. Rejected.

Case 30.—Female, age 4 years; left hip; shortening 1 inch. Refused operation. No treatment since.

Case 31.—Male, age 3 years; both hips; shortening 1 inch. Operated on April 30, 1900. Right apparently perfect; left relapsed. Has not been seen recently; present condition unknown.

Case 32.—Female, age 3 years; right hip; shortening ¾ of an inch. Refused operation.

Case 33—Female, age 4 years; both hips; shortening 1¼ inches. Operated on Dec. 30, 1900. Right hip relapsed during the second month while in the plaster splint, and treatment of this hip was abandoned until a good result should be had on the left side. The plaster splint was removed from the left hip at the end of seven months, and replacement was apparently perfect. During the following three months the femoral head came forward far enough to be felt in the groin. Dr. Fenger was of the opinion that it was an anterior transposition, and such I have reported it. The child walked on this limb for eighteen months without any shortening resulting, and when Professor Lorenz operated on the right hip on Oct. 12, 1902, he examined the left hip and said: "That hip is good enough for any one." He did not say whether he considered it a perfect replacement or an anterior transposition.

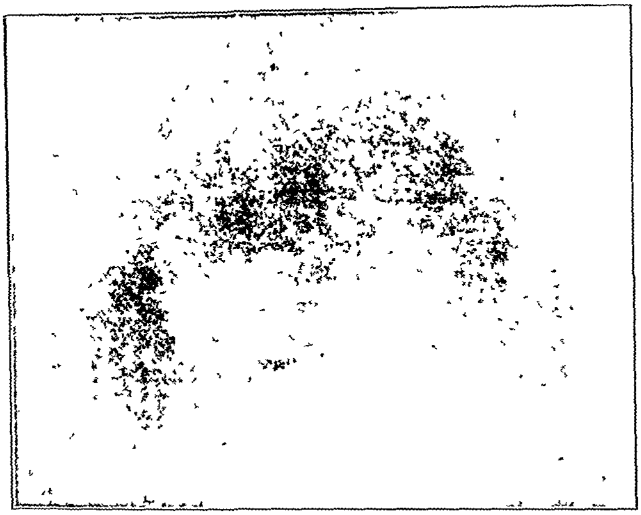

Fig. 3—Case 28 Operated on by Ridlon Hip apparently in for six months after operation, on removal of plaster splint Skiagram Jan 22, 1904, 8½ years after operation, shows a 'saucer-shaped' acetabulum and a supracotyloid displacement.

When Professor Lorenz removed the splint from the hip he had operated on (the right) the limb was found to be shorter than the one I had operated on, but the head appeared to be in place. After about three weeks of daily massage and manipulation by Professor Lorenz an anesthetic was again given and the limb again stretched and manipulated, and again put in a plaster splint. The result has been stated by Professor Lorenz to be an anterior transposition, or "apposition," less good than the result in Case 16.

Case 34.—Female, age 4 years; left hip; shortening 1 inch. Refused operation.

Case 35.—Female, age 12 years; both hips; 3¼ inches. Rejected.

Case 36.—Female, age 4 years; left hip; shortening ⅞ of an inch. Upward and forward dislocation (Fig. 4). Operated on March 29, 1901. Relapsed. Again operated on Nov. 22, 1901. Apparently perfect replacement.

Case 37.—Male, age 2 years; left hip; shortening ¾ of an inch. Operated on May 17, 1901. Aug. 16, 1901, apparently perfect. Can not be traced.

Case 38.—Female; age 8 years; right hip; shortening 2 inches. Rejected.

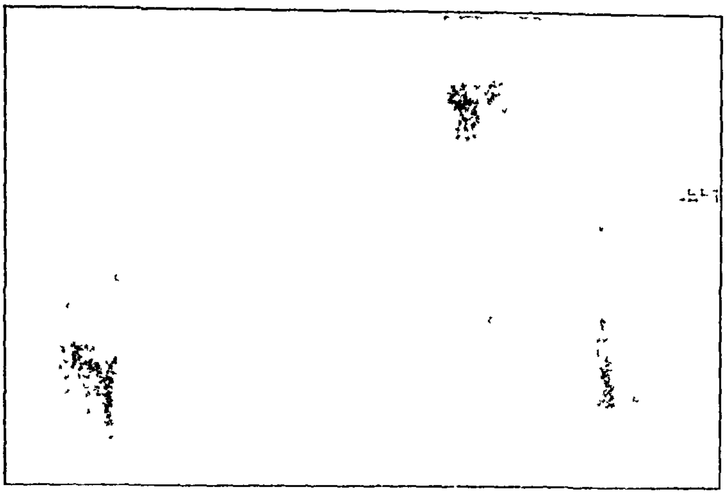

Fig 4—Case 36 Dislocation upward and forward Before operation Two operations were made Perfect replacement when last examined 3 months after removal of splint.

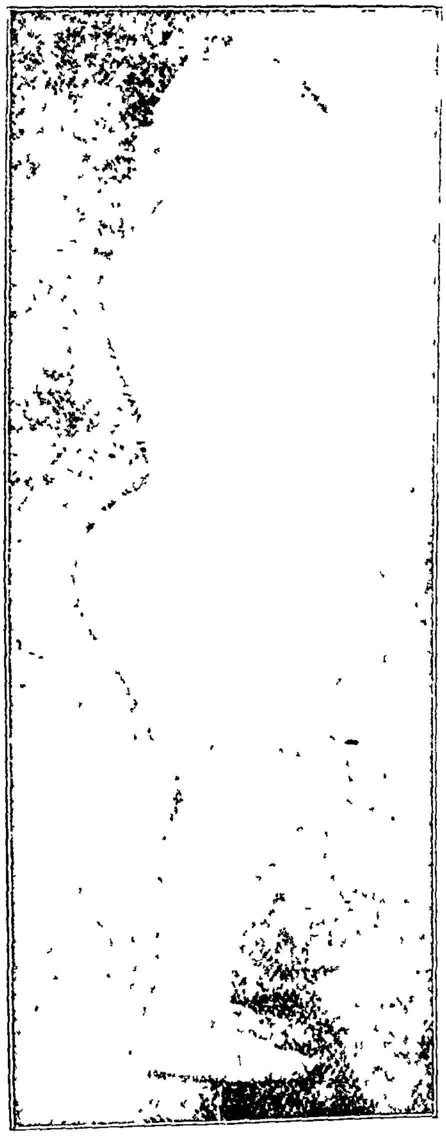

Fig. 5—Case 39. A rejected case

Case 39.—Female, age 12 years; both hips; shortening 4½ inches. Rejected. Afterward rejected by Lorenz. Figure 5 illustrates the kind of case that is impossible to treat.

Case 40.—Female, age 18 months; right hip; shortening 1 inch Refused operation.

Case 41.—Female, age 6 years; both hips; shortening 1¾ inches. Refused operation. Has had no treatment since.

Case 42.—Female, age 13 years; left hip; shortening 3 inches. Rejected.

Case 43.—Female, age 2 years; left hip; shortening ½ an inch. Operated on June 30, 1902. In July, 1903, the result was perfect, and child walked without a limp.

Case 44.—Female, age 2 years; both hips; shortening 1 inch. Operated on Sept. 21, 1902, and put up with knees considerably posterior to the transverse mid-plane of the body. The child was very fat and two previous replacements had relapsed. On removal of the splint at the end of eight months the femoral heads were distinctly anterior. The knees were brought forward until the heads appeared to rest in the cotyloid rings and plaster splint was again put on for two months. Since then there has been such massage and exercises as the mother could give. When last seen the replacement appeared to be perfect, but I have no skingram and I think it more than likely that supracotyloid displacement will result.

Case 45.—Male, age 7 years; right hip; shortening 1 inch Refused operation.

Case 46.—Female, age 2 years; right hip; shortening ¾ of an inch. Refused operation.

Case 47.—Female, age 4 years; left hip; shortening 1¼ inches. Operated on Sept. 20, 1902. Perfect replacement

Case 48.—Female, age 7 years; both hips; shortening 1½ inches. Two operations; both failures. Afterward operated on by Lorenz.

Case 49.—Female, age 12 years; left hip; shortening 2½ inches. Rejected.

Case 50.—Female, age 3 years; right hip; shortening 1 inch. Refused treatment. Afterward operated on by Lorenz.

(*To be continued.*)

THE COMPOSITION OF SOME SO-CALLED SYNTHETICS AND "ETHICAL" NOSTRUMS.*

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One fine morning. some weeks ago, a young lady, an actress by profession, came to consult me about an obstinate headache. "I have used everything you can think of," she said. "I have used antikamnia, Kohler's headache powders, ———'s migraine tablets, orangeine, Hegeman's headache wafers and a lot of other things. At first they used to relieve me, but now they don't do me any good." The self-drugging young woman enumerated five different articles which she had used; different articles in name, but identically the same so far as composition is concerned. Everyone of those articles consists of acetanilid, sodium bicarbonate and a little caffein. Finding a malarial history, I prescribed quinin and ergotin, and her headaches promptly vanished.

About two weeks later a young practitioner approached me at the close of a medical meeting with the following words: "Doctor, I wish you would recommend me something good for dysmenorrhea. I have an obstinate case for which I tried everything you can think of." "What did you give her?" I asked. "Oh, I gave her *antikamnia*, phenalgin, salfene, phenobromate and all the various combinations recommended for dysmenorrhea. They have a slight effect, but only temporary." Here we have a physician, a man who paid out a thousand dollars in tuition fees in a medical college. who does exactly the same thing as the ignorant young woman; that is, he prescribes for his patients things of the composition of which he knows absolutely nothing. All the nostrums he enumerated contain acetanilid as their chief and principal ingredient, and he did not know it! A professional man, and he did not care to make the least investigation into the nature of the drugs he prescribed! Had he done so, he would have spared himself the trouble of prescribing the same drug over and over again under a different name, and his patient's sufferings might have been alleviated by more rational treatment. How can we blame the laity for self-drugging and for swallowing mixtures of which they know nothing, when regular physicians are doing the same thing right along. The above is by way of preface, and now to the subject of the paper.

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* Read at the Fifty-fourth Annual Session of the American Medical Association, in the Section on Materia Medica, Pharmacy and Therapeutics, and approved for publication by the Executive Committee: Drs S. Solis Cohen, George F. Butler and N S Davis, Jr.

Something must be done to stop the avalanche of nostrums which threaten to overwhelm and bury the general practitioner, which put barnacles on the wheels of therapeutic progress, and which throw confusion into the minds of those who have not made pharmacognosy and materia medica a special study, and even into the minds of those who have. No one who has not given the subject especial attention can imagine what impudent mendacity, what incredibly absurd claims, what impossible statements are indulged in by those nostrum manufacturers who have made the physician their special prey. And not only this; downright dishonesty is practiced in taking an old well-known compound, christening it with a new name and offering it to the physicians as a new discovery, as a new synthetic with wonderful properties, as one possessing all the virtues of the old compound with all the drawbacks eliminated. If we take into consideration the difference in the education of the medical profession and of the laity, and compare the statements of the "ethical nostrum" manufacturer with those of the regular quack patent-medicine man, we will find that the ones are not in the least less extravagant than the others. It would be impossible to enumerate and to discuss all the fakes and humbugs that are foisted on the attention of the medical profession. I must, therefore, be satisfied with giving a few illustrative examples. The examples are not by any means unique. They are typical of numerous other cases.

Some three years ago a preparation appeared on the market heralded as a wonderful new antipyretic alkaloid, non-depressant, a specific in typhoid fever, etc. Numerous cases were reported by a certain class of practitioners testifying to its value in various conditions. An impossible formula was appended, and it was launched as one of the great discoveries of the twentieth century. One would hardly believe it, but it is a fact which can be demonstrated before the eyes of everyone, that this wonderful new discovery is nothing but impure acetphenetidin. I was so astonished when I made the discovery that I thought I would apply to some authority for confirmation of my findings. I wrote to Prof. Virgil Coblentz of the New York College of Pharmacy, and he answered me that I was perfectly correct; that it was nothing more nor less than impure acet-para-phenetidin, that is, phenacetin. He added: "Possibly traces of salicylic acid have been added to the product from time to time, for obvious reasons, yet this does not alter the fact that we have before us in this preparation an impure phenacetin. This is a positive assertion, based on the results of a number of examinations." The same company puts up a [illegible] is asserted to be bismuth oxyiodid [illegible] According to analysis, it is merely bismuth gallate, with a small quantity of free gallic acid; no iodin could be traced in the examined specimen. Another specialty, greatly boosted as a wonderful remedy in uric-acid poisoning, is claimed to be acetyl methylene di-salicylic acid. According to analysis, it is simply an impure methylene salicylic acid, which can be easily produced from salicylic acid by means of formaldehyd and muriatic acid. The presence of an acetyl group could not be established in the examined sample, either by heating with water or with alkalies, or with concentrated sulphuric acid. On heating a substance with concentrated sulphuric acid and alcohol, if acetyl is present, the odor of acetic ether is noticed, while with this preparation, there is not a trace of acetic ether observed.

Hemaboloids was also introduced with a loud beating of drums. Beautifully executed charts were given, showing the various kinds of blood corpuscles, the great increase in the number of erythrocytes, etc. The prepation was asserted to be "a palatable fluid food, partially digested and made aseptic and more assimilable by treatment with nuclein, rich in iron and phosphorus-producing elements," and it is said to consist of "vegetable nucleoalbumin (Nature's supply source of iron and phosphorus for the human system), reinforced by bone marrow extract and beef peptones." What are the facts? A careful analysis has demonstrated the total absence of nuclein or bone marrow; and, further, that the preparation is nothing more nor less than an alkaline 1 per cent. solution of iron peptonate in a vehicle of alcohol, glycerin and water, flavored with spirit of orange. The amount of alcohol it contains is large, namely, 16 per cent., stronger than any ordinary wine. According to Professor Harrington of Harvard, the maximum *daily* dose recommended yields about *one-fourth of an ounce* of nutriment, and the alcoholic equivalent of about an ounce and a half of whisky.

While I am on this subject of hemaboloids, I might touch briefly on prepared liquid foods in general. Most of them are a snare and a delusion, and I have no doubt that we frequently starve our patients on those "concentrated, predigested foods." As an example, I will take the most popular, because the oldest of the liquid foods, namely, liquid peptonoids. This is said to contain "the albuminoid principles of beef and milk and wheat," and asserted to produce immediate and pronounced effects in cases of feeble digestion and wasting diseases; dose, for an adult, one or two teaspoonfuls, three to six times daily; children in proportion.

The maximum amount recommended for an adult will yield less than an ounce of nutriment, and the alcoholic equivalent of three and one-half ounces of whisky per day. Analysis shows 23.03 per cent. by volume of alcohol, 14.91 per cent. of total solids, and 0.17 per cent. of mineral matter.

The above examples illustrate the extravagant and false assertions made by certain manufacturers regarding the composition of their products.

There is another class of products about the composition of which no assertions are made. Nothing is stated about the chemical composition, because the products being common mixtures requiring no brains, skill or knowledge, any false assertions would render the proprietors ridiculous. Therefore they say nothing about the composition of their products; they simply tell you: prescribe our goods; they produce wonderful results; you need not know what they consist of, we will look out for that. All you want to do is to order in original packages and use according to directions. And, sad to say, there are numerous physicians who do just as they are told. To give the composition of a few of these preparations might not be without interest:

Antikamnia: This nostrum has been shown hundreds of times to consist of acetanilid, sodium bicarbonate and caffein. Its cost is about 3 cents per ounce; it is sold at $1 per ounce; The poor druggist and the public pay, and the manufacturers make millions.

Salfene: Composition, acetanilid and sodium bicarbonate.
Phenolid: Acetanilid and sodium salicylate.
Febralgen: Acetanilid and sodium bicarbonate.
Phenobromate: Acetanilid and potassium bromid.
Phenalgin: Acetanilid, ammonium carbonate, sodium bicarbonate, caffein.
Phenamid: Acetanilid and sodium bicarbonate.

Note that every one of the above wonderful discoveries contains acetanilid. It is a regular bonanza for those manufacturers. Acetanilid costs 25 cents a pound, sodium bicarbonate 3 cents. With the little caffein the mixture costs about 30 cents a pound, and it sells for $16.00!

And now I want to touch on another great nuisance, which brings so much confusion into the poor physician's mind that he simply "don't know what is what," and even the specialist in materia medica often does not know where he is at. I refer to the custom of giving fancy names to well-known, not even patented chemical compounds, and to the questionable practice of giving several different names to the same compound. I will give a few examples, just as they come to my mind:

"Hydrargotin" is a fancy name for mercury tannate.
"Dymal" is didymium salicylate.
"Montanin" is zinc sulphite.
"Chrysolein" is sodium fluorid. "Remarcol" is the same thing.
"Tachiol" is silver fluorid.
"Horit" or "Gorit" is calcium peroxid.
"Calcinol" is calcium iodate.
"Biogen" is magnesium peroxid.
"Musol." is a fake diabetic remedy, which is nothing but salol.
"Anodynone" is a trade name for ethyl chlorid.
"Antimorphin" is a solution of sodium phosphate.
"Katharol," "Lazon" and "Oxydol" are fancy names for a solution of peroxid of hydrogen.
"Intestin" is bismuth-naphthalin benzoate.
"Parietin" is chrysophanic acid.
"Rachitol" is an imbecile name for the suprarenal gland in tablet form.

And if a new preparation appears on the market, the process of which is not or can not be patented, there are sure to come up several brands of it under different names. It is enough to drive one to insanity to try to remember them all. Hexamethylene-tetramine, one of the few really valuable remedies introduced during the last decade, was first brought to the notice of the medical profession under the name "formin." It was soon taken up by Nicolaier, to whom belongs the credit of popularizing it under the name urotropin. After that we got the names "cystogen," "cystamine," "ammonio-formaldehyd," etc., etc., all one and the same thing.

Di-sodium methyl arsenate, a preparation similar to sodium cacodylate, except that the latter is a di-methyl arsenate, is known under the three euphonious and instructive names: "arrhenal," "stenosine" and "neo-arsycodyle."

Iron cacodylate has three aliases: "atarsyle," "ferricodyle" and "marsyle"; thymol carbonate is known under two names: "thyratol" and "thymotal"; magnesium dioxid has two aliases: "biogen" and "hopogan"; airol is also known as "airoform" and "airogen."

What is the remedy? The remedy for this, as for most other evils, is education. It is a false and pernicious theory that error should be left alone; that it will die out by itself. It may in time, but I am sure that error and fraud unattacked will live much longer and thrive much better and have many more followers than if exposed frequently and attacked boldly and unitedly. We need an active, persistent propaganda, a twofold propaganda—propaganda among the laity and propaganda among physicians. The Association should appoint a committee of two or three hundred members, whose duty it should be to write frequently to the daily press on the evil of self-drugging, to enlighten them as to the composition of most of the widely advertised nostrums. It would be still better if every ethical physician constituted himself a committee of one to pursue this work. Show the people that in taking "Peruna," "Hostetter's Stomach Bitters," etc., they are merely imbibing large quantities of whisky. Show them what quack-medicines contain morphin and other narcotics, and the sale of those remedies will diminish materially.

But the physician is just as much in need of missionary work, in his line, as the public is. Let us educate the physician to demand the composition of everything he prescribes. The manufacturer will have to give it, because without the physician he might as well go out of business. And if we are given the formula, let those of us who are competent, examine the product once in a while to see whether it is true to the formula or not. And woe to the manufacturer who gives a false formula or makes false assertions. All his other goods would be ostracized forever. Let the true composition of each remedial preparation be insisted on as a *sine qua non* before prescribing, let our journals print occasionally contributions about the various wonderful discoveries offered to the profession, and all such products as "antikamnia," "thialion," "respiton," "neurilla," "Dad's quinin pills," "emissine," "appendicine," "gynecine," "manola," "sanmetto," "ecthol," "seng," "chionia," "chaparine," "zarcol," "labordine," etc., will disappear from the face of the earth, and will cease to disgrace the pages of our medical journals. Having mentioned medical journals, I can not conclude without saying a few words on the subject of medical advertising.

This is a subject which must be discussed without reserve, and it is a subject which will not be settled until it is settled right. To say that the reading pages have nothing to do with the advertising pages, is sheer hypocrisy; no matter how we may try to get away from it, the fact remains that when we advertise a preparation we give it a quasi indorsement. And even if we don't give it an indorsement, we induce the physicians to prescribe it, we aid in its sale, we encourage charlatanism and fraud, we confuse therapeutics; in short, we aid indirectly in humbuggery. I am not a crank. I am not opposed to new remedies of proved merit, but I assert that the line must be drawn somewhere, and it must be drawn closer than it is at present. We rail at the daily press for admitting filthy medical advertisements and demand that they discontinue the practice. But many of the advertisements in the medical journals are of no better character, and we should certainly give our own journals a thorough cleansing before pointing out filth in the daily press. I am not speaking of such journals as the *Medical Brief*. The object of such journals is filthy lucre, and no filth is too filthy for them. But how respectable journals can admit such articles as emissine, sanmetto, California Fig Syrup, Robert-Hawley's lymph compound, manola, neurilla, seng, chionia, ecthol, antikamnia, Dad's quinin pills, etc., is beyond my comprehension. To preach in the editorial and reading pages therapeutic rationalism, care and discrimination in prescribing, and then nullify the teachings by presenting in the advertising pages a lot of nondescripts of unknown composition, is certainly the acme of absurdity and inconsistency. It is not a whit less inconsistent than the attitude of the *New York Journal,* which prints splendid editorials against the whisky evil and its life-destroying property on one page, and on the next page presents to its readers an array of testimonials of the wonderful life-prolonging virtues of Duffy's malt whisky. No, something must be done in the matter. The advertising pages of ethical medical journals must be made clean, to correspond more or less, at least, with the tone of the reading pages.

In conclusion: Do not misunderstand me; I do not attack all patent or proprietary preparations. Not at all. Our first duty is to our patients. If a patented preparation will do our patients more good than an official one, let us prescribe it by all means regardless of the fact that the manufacturers are making a good profit out of it. I am simply pleading for discrimination. The high-class manufacturers of true synthetics, of products in whose preparation real chemical skill and knowledge are required, or of elegant pharmaceutical preparations, about the composition of which there is no mystery and about which no extravagant assertions are made, who subject their remedies to clinical tests at the hands of competent physicians before they launch them into the market, should be supported and encouraged; the fakers who mix two or three well-known ingredients, christen them with some fancy name and make extravagant assertions for them, should be boldly and fearlessly exposed.

DISCUSSION.

Dr. George F. Butler, Alma, Mich.—I stated at Columbus that we ourselves are to blame for all this. The average physician to-day learns his therapeutics from pharmaceutic houses. The therapeutics of to-day are not equal to the therapeutics of our grandfathers. When the subject of therapeutics is better taught in our colleges and when more time is devoted to it, possibly the physician of the future will be able to prescribe medicines about which he knows something. Materia medica is not taught at all now in some colleges, and is considered of minor importance in others. The student has been taught to look into the microscope for bugs, giving but very little if any attention to the treatment of sick people, and when he enters practice some fellow comes along and says such and such a proprietary preparation is good for so and so, and he prescribes it. I do not know how we are to prevent it either unless students are educated differently. It is really a question whether a medical journal is responsible for its advertisements any more than is *Harper's Magazine* or the *Chicago Tribune*, or any other periodical.

Dr. Caswell A. Mayo, New York City—An improvement in one weak feature in medical education, from the standpoint of the pharmacist, would go far toward solving the problem. That is the practice in hospitals of ordering by numbers. In the average hospital, with the view of economizing the time of the pharmacist, nearly all the internes get into the habit of prescribing certain routine preparations by number, without knowing fully what they are giving in certain conditions. They thus pave the way toward a purely empirical method of treatment. This sort of thing should be avoided. In one college each prescription is written out in full, and it is dispensed separately by the pharmacist; thus the medical students get practice in actually writing prescriptions and the pharmacy students get practice in filling them. It is to be hoped that this individual method of presenting will be more generally adopted.

Dr. C. S. Chamberlin, Cincinnati—Confirming the statements of Dr. Robinson regarding one preparation referred to, I will say that about three years ago Prof. H. M. Gordin analyzed this substance and reported that he found it to be impure phenacetin and I believe he wrote to the editor of one of our most prominent journals calling attention to the fact that they were publishing an advertisement of a fraudulent article, and I myself brought to their notice, through their advertising manager, this fact, but the advertisement still appears in the journal in question. With regard to the proprietary preparations with curious names, the physician is probably responsible for all of them. Dr. Butler admits that he has used every proprietary preparation of iron he ever saw. A few years ago I took charge of the advertising department of one of our largest manufacturing houses, and as I was informed that certain of our leading journals had adopted a rule by which they insisted on having the exact composition of every preparation advertised, I published the formula of each specialty which we advertised in their pages, but I soon found that I was the only one who did so. The manufacturing pharmacist simply supplies the demand of the physician.

Dr. W. W. Tompkins, Charleston, W. Va.—I think the very heads of the profession are largely responsible for the introduction of these preparations. I know very well that when these preparations are brought to me I look over the names of men who have used them, and if a certain list does not contain the name of some one man of particular standing I put the preparation aside, but, on the other hand, if there are endorsements by good men who are recognized as teachers then I am in the habit of giving the preparation a certain degree of confidence. In a certain preparation I noticed that a man had substituted antipyrin for acetanilid. I believe Dr. Robinson stated in his paper that acetanilid is worth 18c or 20c a pound, and I believe phenacetin is worth four or five times that amount. We should all strive to make some original observation as to the effects of medicines, and when remedies are not producing the effect they are asserted to produce, cast them aside. I believe it to be the province of each conscientious physician to endeavor to reduce the number of remedies in the materia medica, and not add thereto. How many of these new remedies are remembered a year after their announcement? Let us do all we can to perfect and simplify therapeutics.

Dr. J. A. Storck, New Orleans—I am inclined to agree with Dr. Butler that the fault begins in the medical college, and that we should teach the student to study the writing of prescriptions, and should teach him materia medica. Even in the best colleges there seems to be a tendency to ignore materia medica.

Dr. J. S. Rawlins, Dancyville, Tenn.—A fault which has not been attended to is the injustice done the licensed pharmacist by prescribing these compounds. I am not a pharmacist, but a physician. The advertisers are using us to introduce their compounds, and very soon they will abandon both physician and pharmacist and deal directly with the patient and advertise through the secular press, and the pharmacist and the physician who give these compounds will be degraded to the position of pedlers of secret or patent nostrums.

Dr. B. C. Keister, Roanoke, Va.—We should make a distinction between secret nostrums and proprietary articles whose formula is known, and we may prescribe the latter, but secret nostrums should not be kept in the drug stores, because no intelligent physician will prescribe them, and they should be relegated to the merchant. In Germany they are not permitted to sell anything of that sort in the drug stores, and it would be a good thing if we could follow that rule in this country.

Dr. C. E. Skinner, New Haven, Conn.—It seems to me that the only effective remedy for this evil is to have men like Dr. Robinson, who understand the composition of these preparations, read papers to us in our meetings and expose their structure. I believe there is more or less danger of the physician at large forsaking the scientific treatises on the materia medica for the literature which accompanies these preparations. There would be no use in appealing to the public through the press, because the average individual is very fond of prescribing for himself, and these concoctions, as well as the literature describing them, are easily obtainable at the druggist's by any one who chooses to ask for them. If the committee of two hundred which has been suggested should be composed of men who were qualified to and who would read papers like this to the balance of us I think it would be a more influential remedy than anything else.

Dr. Hugh N. Leavell, Louisville, Ky.—I had hoped to hear this interesting paper because I am working along the same line. I believe we are perfectly correct in refusing to prescribe any preparation, the formula of which is unknown to us, but we are also, to a very great extent, dependent on the integrity of the druggist. The result is that many times we get a mixture which is not at all similar to the one that was prepared by a very competent pharmacist, and we are much surprised by the variability of the results of our prescriptions, so we should regulate in some way the sale of these so-called synthetic compounds. I had occasion to bring this matter before a local body of men in Louisville some time ago, and I was surprised at the variety of opinion expressed regarding these synthetic compounds. The fact remains that the manufacturer is using the physician as a drummer, and we continue to use any compound placed in our offices for trial, and if peradventure we get some good result we announce it to the profession and then the stock is placed in the corner drug store and sold promiscuously.

Dr. C. S. N. Hallberg, Chicago—There is a great difference in these preparations. Some years ago I made a classification of articles advertised in the leading journals and separated them into twenty-four classes. Some of them were objectionable because they were innocuous; others were decidedly objectionable. This is a work particularly for the pharmacists, and we should endeavor to clarify the situation and correct some of the abuses. There is a rule which requires that before any article can be admitted to the exhibition of the American Medical Association at an annual session, the formula must be placed in the hands of the chairman of the committee on exhibits, yet there are articles advertised in the journals which are not accepted even by sensational newspapers. It has been laid down as a principle that any patent medicine for internal medication, as distinguished from a food, antiseptic, etc., should not receive the patronage of the profession if advertised to the laity, nor should it appear in the medical journals. It seems to me that we should take some steps toward the correction of this evil for the protection especially of the physicians who are often misled into prescribing these medicines by the wily advertisers, only to be afterward used to "boost" them for self-medication to the public.

Dr. B. Pirosh, Chicago—The correction of this evil is one of the hardest problems with which we have to deal. I do not regard as a remedy the conviction of the manufacturing people. The chief trouble lies in the insufficient teaching of pharmacy in our medical schools. Pharmacy and pharmacology ought to be taught more thoroughly, so that the physician at the bedside of the patient shall not hesitate to apply the best remedy he knows, and the best form, too, not being compelled to take refuge in remedies put up for sale by manufacturers and recommended to the learned man by means of pamphlets.

Dr. W. J. Robinson—This question seems to me to be of the greatest importance. I say that a journal is responsible for its advertising pages. If the advertisement does no good and the physician is not induced to prescribe the remedy and the sale is in no way increased then the journal is accepting money under false pretenses; but the manufacturer is a mighty good business man, and if the sales were not increased he would very quickly drop the advertisement, consequently we know that the sales are increased and the advertising pages do aid in spreading the good remedies and the nostrums alike. I am not an extremist. There are some of these remedies to which I do not object, but what I fight against is the attempt to force us to use things about which we know nothing and for which extravagant assertions are made. The physician certainly can not do good if he does not know what he is prescribing and as shown, the composition of many of these things is not even hinted at, so that the physician can not know what he is prescribing.

Clinical Report.

WOUND OF THE MEDIASTINUM.

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PORTSMOUTH, VA.

Introduction.—This case came under my care while I was stationed with the Army at Zamboanga, Philippine Islands, and while serving as medical officer in charge of the garrison at the naval station, and of the inhabitants of the Island of Basilan who are subject to the American governor. Basilan is the most southerly island of the Philippines proper, and has about eight thousand inhabitants, mostly Yacan and Mollussa Moros. The building assigned to me as a hospital was a ramshackle, tumbledown, barn-like affair, constructed on piling over the water. Outside of my apothecary, an excellent man, my help was the poorest and most inefficient. Occasionally a young graduate in medicine, who was then in the lumber business at Port Isabella, came to offer his advice; but aside from this meager assistance, I was dependent entirely on my own supervision of the case, day and night.

The Injury.—Lam Ah Chan was employed as a cook by the naval and marine officers stationed in Basilan; he was a civilian employe, not an enlisted man. On the morning of May 29, 1902, he was shot through the chest by a Filipino mess attendant. I saw the man in less than two minutes after he was shot, finding him prone on the floor and unconscious. The lead bullet was imbedded in the wall behind the place where he had stood when he was shot. I picked the bullet out, after carefully measuring its distance from the floor, and taking notice of its course after it had passed through his body and penetrated the planking. The ball entered his body immediately below the third clavicle, grazing that bone, which deflected it downward and inward, passing in this direction out in the median line of the dorsum, at about the upper portion of the body of the fifth dorsal vertebra.

Symptoms.—There was immediate and complete paraplegia and loss of sensation below the point of exit, and at once it was suspected that the spinal column had been seriously injured, or at least that the cord had received some laceration. After the primary shock and unconsciousness had subsided, about an hour after receiving the wound, he vomited the contents of the stomach and nearly an ounce and a half of dark coagulated blood.

Diagnosis.—The possibility of perforation of the stomach and the wisdom of immediate operation was considered, but I decided against it, as I did not consider operation warranted, unless the bullet had zigzagged in its downward course, which would have been more than unusual from the position of its course, its velocity, and the general circumstances attending the case; perforation of the esophagus seemed more plausible. No blood or bloody mucus was expectorated, hence injury to the lungs or bronchii was eliminated, the bullet having escaped these in its course somewhere through the mediastinum. After it impinged against the body of the dorsal vertebra it again deflected, this time upward, as proved by its direction in penetrating the wood above the man's head. Examination of his spinal column revealed no crushing of the bones, as all movements of the back were normally produced, demonstrating no material injury to the bony structure. His quick recovery of consciousness and the minor degree of surgical shock, suggested either an extraordinary amount of vitality or that no harm had been done outside of considerable congestion of the cord with its consequent paralysis.

Course.—His temperature taken at intervals throughout this day remained below 100 F. At about 8 o'clock p. m., he again vomited, this time a watery fluid containing slightly more coagulated blood than was vomited in the forenoon. The pulse became weaker, remaining so for several hours.

May 30. Tympanitis began. The patient passed up during the day a small quantity of coagulated blood, presumably from the esophagus. Catheterization. Bowels emptied artificially. Given nutrient enemata. The patient complains of great pain all over the chest; given morphin sulphate 1/4 gr. with atropin. Highest temperature 100 F.

June 1 and 2. Morning temperature 100; afternoon temperature, 102. Tympanitis disappeared. Continued rectal feeding, catheterization and symptomatic treatment. Patient does not complain of pain in any part of his body or limbs. On June 2 eggnog in small quantity by the mouth was retained without causing distress of any sort. The patient continues to expectorate small quantities of dark coagulated blood.

June 3. Pus formation in bladder discharging through urethra, no history of venereal disease. Irrigation of bladder with warm boric acid solution. Bed sores appeared over sacrum and on left heel. Position in bed is changed as much as practicable, avoiding possibility of internal hemorrhage and gastric distress.

June 5. Morning temperature, 100.4; afternoon temperature, 102.4. Pulse is fuller and stronger; it has never lost its marked regularity. Patient was given small doses of salol, gm. 0.3, t. i. d. He retains with ease and enjoyment eggnog by the mouth, in larger quantity than heretofore, and was given chicken broth by the mouth with good results.

June 6. Paraplegia is slowly ascending, there is no sensation to touch or pain below the sternum and below the point of exit of the bullet in his back. He is given as much nutriment as possible, takes it by mouth often, craves and enjoys semi-solid food.

Up to June 15, when his afternoon temperature ran up to 104.1, there have developed no new symptoms. His temperature during this interval ranged from 100 to 103, bladder symptoms remaining, although discharge of pus was very slight. Small doses of potassium iodid were given in hopes of causing absorption of spinal congestion. The following three days there was a fall in his body temperature and a general improvement. June 19, he had a very restless night, throwing his arms about and complaining of his condition. A constant watch had been kept over him to prevent his Chinese friends from supplying their own means of treatment, as well as to be ever ready to attend to his wants. There is no more pus formation in bladder. Decubitus is increasing in severity, notwithstanding every precaution to relieve undue pressure. He is displaying obstinacy to treatment, which is more than likely stimulated by the conversation of his Chinese friends.

June 20. The heart action being slightly depressed, he was given tincture digitalis, minims 5, by the mouth every four hours. Next day, condition about the same. A mild chill. Morning temperature, 100.2; afternoon temperature, 101.6. Hot water bottles applied under blankets. Hot drinks ad libitum.

There was no particular change in his condition for the next five days, save that the decubitus increased in spite of all effort to avoid pressure. His temperature ranged about 100. The night of June 27, he had a severe chill, with cardiac depression. All drugs except cardiac stimulants were discontinued from June 29, the patient became weaker, a gradual decline set in, and his mind, which up to now had been clear, began to show symptoms of a delusionary character. He refuses his food, and expresses a desire to make away with his life. He was given digitalis, strychnin and brandy, and as much concentrated food as can be retained.

July 3. A large slough was removed from the bedsore over the sacrum, exposing that bone in part and most of the coccyx. Pulse and respiration were becoming weaker, and the patient did not respond to stimulation readily. Morning temperature, 98.6; afternoon temperature, 102. Thorough cleansing of bedsores with pyrozone, and antiseptic protection. Patient gradually grew worse, lost consciousness the morning of July 6, and at 6:40 o'clock p. m. died.

Necropsy.—The following morning a postmortem examination was held, the governor general of Basilan calling in a civilian physician to take notes for the legal proceedings against the Filipino mess attendant. The gist of these notes is somewhat as follows:

Emaciation general; small unhealed abrasions lower right side abdomen and right thigh. Bedsores, both heels, right and left ankles, and over sacrum, latter about six inches in diameter. Appearance of wound of entrance: small raised scar, one inch to left and half inch below internal end of left clavicle. Pleura beneath wound of entrance adherent to apex of left lung. Left lung generally congested. Right lung normal. Some pus formation in lower end of esophagus, could not be absolutely or definitely located, owing to maceration and adhesion of tissues in that region. Appearance of wound of exit: small round scar, one-half inch to left of spinous process and between fourth and fifth dorsal vertebræ. Membranes of spinal cord congested to a marked degree. The cord itself congested to a less degree. There is no evidence of any injury to the bony structure of the vertebral column. Examination of the remaining viscera showed no evidence of any tearing, or inflammatory process caused by the passage of the ball in its course.

The Legal View of Insanity.—The vagaries of judges in dealing with the difficult subject of criminal responsibility are notorious, says our London correspondent. A man may be acquitted before one judge on the ground that he was insane when he committed a criminal act, whereas he would have been convicted before another. Medical evidence they often treat with scant respect, preferring to decide the question by their own lights. The following case is an example: A retired clergyman, aged 62, of Oxfordshire, England, committed no less than seven indecent assaults on girls aged from 11 to 13 within a period of six months. Previously he had had a hard-working and apparently blameless career. The medical evidence showed that there were hardening and thickening of the arteries, especially those of the head, and that he suffered from time to time from dizziness, attended with general mental confusion. There was also defective memory for recent events. He knew right from wrong in the abstract, but did not appreciate the moral significance of his acts in relation to the individuals concerned. The condition was regarded as progressive, and it was stated that the law or moral restraint had no effect on him. He did not understand that he was doing harm to the girls. Dr. Mercier, the eminent alienist, confirmed this evidence, holding that the prisoner was suffering from premature senile decay and both physical and mental deterioration, and that the case was certifiable. The judge pointed out to the jury that the prisoner had filled responsible offices, and had before the trial been regarded as sane. As to the "senile decay" described by the medical witnesses he repudiated the idea that mere decay of the faculties was evidence of insanity or irresponsibility. It lay for the defense to show that the prisoner did not understand that he was doing harm to the children. In conclusion he asked the jury as men of the world to exercise their "common sense." This intimation had the effect evidently desired. After a few minutes consultation they convicted the prisoner, who was sentenced to six months' imprisonment with hard labor. The "common sense" exercise by the judge and jury in this case was, as it often is, only "common ignorance." Common sense is a strong point, and a valuable one in the character of the ordinary English juror. His weak point is want of subtlety, and on an intricate or scientific question he requires the guidance of superior minds, instead of being told to exercise his "common sense." In the celebrated case of Mrs. Maybrick, who was convicted of poisoning her husband with arsenic, "common sense" had much to do with the verdict. An array of scientific evidence, if anything stronger than that of the prosecution, was produced to show that Mr. Maybrick had not died from arsenical poisoning at all. Instead of telling the jury that the prisoner was entitled to the benefit of the doubt on this point, the decision of which in the affirmative, was a necessary preliminary to the verdict of guilty, the judge told them not to pay too much attention to the medical evidence, but to decide the case by the other circumstances, thus reducing an essential point to a merely collateral one. The jury exercised their "common sense," to which the fact that the prisoner had a lover strongly appealed, and convicted her.

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WOOD ALCOHOL.

Wood alcohol, which recently has come to be used extensively in the arts and in the manufacture of culinary and medicinal extracts, is a most dangerous substance when taken internally in sufficient quantity. When pure, it has a rather agreeable ethereal odor and a sharp, burning taste, and when ignited burns with a bluish flame, giving an intense heat. It goes under a variety of names, such as wood spirit, methyl alcohol, burning alcohol, Columbian spirit, naphtha and wood naphtha. It is used in the manufacture of ether, chloroform, formaldehyd and methyl chlorid, and also in the preparation of shellac varnish, since it is a good solvent of resinous substances. As there is no revenue tax on wood alcohol, it can be bought for about 50 cents a gallon, whereas grain alcohol is worth $2.60 a gallon, the tax being $2.17 a gallon. This difference in price is a great temptation for the unscrupulous manufacturer of flavoring and medicinal extracts, and it is frequently found that these contain a large percentage of wood alcohol. Thus it has been shown conclusively by Harlan[1] and by Main[2] that essence of Jamaica ginger, peppermint and lemon may contain as high as 75 per cent. of wood alcohol. The cheaper grades of alcohol also frequently contain wood alcohol.

Wood alcohol is, however, a powerful poison, and there is hardly a month in which one does not read or hear of a case of blindness or death resulting from its use or from the use of essence of lemon or Jamaica ginger which had been prepared with it. In the last eight years over fifty deaths due to drinking varying quantities of wood alcohol are mentioned in the literature, but this includes only a small percentage of the deaths which have been caused by that substance. Prior to 1896 only one case was reported. This is probably due to the fact that wood alcohol was not used so extensively then as it is now. Ten of these deaths resulted from drinking essence of lemon, eleven from essence of Jamaica ginger, and the remainder from drinking the pure alcohol, mixed with water. In most of these cases the victims had been out on a "spree," or had bought a quantity of cheap alcohol for a celebration at home, and some of them drank as much as a pint of the alcohol, while others drank ten to twelve bottles of essence of lemon or ginger. Death is said to have resulted, however, from less than two ounces. It is important to note in this connection that the action of methyl alcohol differs widely in different individuals. Perhaps the majority of those who drink it escape without permanent damage, while others may die or become totally blind, even if they have taken smaller doses. The exact mode of the production of death is not known, but the researches of Pohl and of Hunt have shown that methyl alcohol is excreted from the body very slowly. The important discovery has also been made that it is only partially oxidized in the body, and that its administration leads to the formation of a highly toxic acid (formic acid) and probably also formaldehyd. This is an interesting illustration of the fact that the body may convert one poison into another, which is far more powerful than the one that was ingested. Bongers has made the observation that when methyl alcohol is injected into the rectum of an animal some of it and also some formic acid is excreted into the stomach. These substances are presumably reabsorbed, either from the stomach or from the intestine, and some of them again excreted into the stomach, thus forming a "circulation" of methyl alcohol. The result of this "circulation" is that the irritant action of methyl alcohol on the digestive tract is exerted several times. As we shall see below, one of the most marked symptoms of methyl alcohol poisoning is gastrointestinal irritation, and this is probably due in part to the peculiarity of its excretion.

Another very important sequence of drinking wood alcohol is a sudden development of amblyopia, which frequently ends in total blindness. During the last eight years thirty-six cases of amblyopia following the use of wood alcohol in some form have been reported. Twenty-two of these cases followed a debauch during which wood alcohol was drunk; fourteen were caused by drinking essence of Jamaica ginger or lemon, and eight resulted from the inhalation of wood alcohol fumes while shellacking in a large vat or closed room for several days. The last mentioned cases are interesting, because they show how dangerous this drug is when taken for a period of days, even in very small quantities. This is no doubt due to a cumulative action, because the drug is excreted from the system so very slowly. The experiments of Hunt, de Schweinitz and Birch-Hirschfeld show that methyl alcohol may be given to an animal in a single large dose and have a less toxic effect than the same dose of ethyl alcohol. If, however, small doses are given daily to two different animals the one that is receiving the methyl alcohol dies within a week, and may become blind several days before death. The retinæ show marked degenerative changes. The one that is receiving ethyl alcohol, on the other hand, shows no bad effects, and may even gain in weight. If it is killed and its retinæ examined, no pathologic changes are found.

There is some difference of opinion regarding the pathology of methyl alcohol amblyopia. The experiments of Holden, Birch-Hirschfeld and Friedenwald have shown that there is a degeneration of the ganglion cells and macular layers of the retinæ caused by nutritional disturbances, due to the vasoconstrictor effect of the methyl alcohol on the retinal vessels. This degeneration is inevitably followed by a degeneration of the nerve fibers of the optic nerve. Other observers are of the opinion that there is primarily an interstitial optic neuritis, but it seems likely that the first view, which is the more recent, is correct. It is probable, however, that a degeneration of the ganglion cells of the retina and an interstitial neuritis are going on simultaneously.

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[1] Ophthalmic Record, 1901, x, 81.

[2] Journal of Med. and Science, 1903, x, 26.

The symptomatology of methyl alcohol poisoning presents a very definite picture, and hence it is not difficult to make a positive diagnosis. There may be first great muscular weakness with defective heart action, followed by intense gastrointestinal disturbances with severe nausea and vomiting, intense headache, giddiness, coma and delirium. Some cases die within twenty-four hours, but others recover only to find that they are nearly or totally blind. Some do not lose their sight for several days after they have recovered from their intoxication. These cases of blindness may improve under treatment, but nearly always relapse and remain in that condition. On examination there is found a contracted visual field with absolute central scotomata. The pupils are widely dilated and irresponsive to light. Ophthalmoscopically there is noted a blurring of the edges of the optic discs, positive optic neuritis and later complete optic atrophy.

The treatment of methyl alcohol amblyopia is unsatisfactory. Some cases have improved under free catharsis from jalap, calomel and salines, combined with diaphoresis from hypodermics of pilocarpin. This treatment, however, must be given during the first few days of the acute inflammatory stage if any beneficial results are to be expected. When atrophy begins to show itself strychnin is given hypodermatically in increasing doses until the point of tolerance is reached. Potassium iodid has also been used, but it must be remembered that the prognosis is very bad when signs of atrophy begin to appear. In most cases the affection goes on until complete blindness results, regardless of what treatment is given.

THE N RAYS.

About a year ago Blondlot, a French investigator, while working on polarization of x-rays, made certain observations which led to the discovery of a new variety of rays. He found that there were emitted from his focus tube invisible emanations which would pass through a thin plate of aluminum, could be focused by a quartz lens, and falling on a small electric spark would cause a very noticeable increase in the brightness of the spark. Work on these rays has very rapidly progressed during the past year, so that at present a large amount of data has been obtained regarding them.[1] The work has been limited largely to France and has been done mostly by the discoverer, Blondlot, and by Charpentier, who has developed the subject especially along physiologic lines. These rays have been named N rays from the first letter of the town Nancy, at which place is located the University of Nancy, where Blondlot has been carrying on his researches.

As stated, the presence of these rays was first detected by the effect they produced in increasing the brightness of a small electric spark. Later it was discovered that a small, blue flame would also increase in brightness under their influence. It was found, too, that the presence of the rays could be detected by the effect which they had of increasing the luminosity of phosphorescent bodies. Sulphid of calcium, previously insolated, is very excellent for this purpose and is much used. Even phosphorescent bacteria can be used to detect the rays.

The sources of N rays are numerous, and new sources of these emanations are being discovered continually. As has been stated, they were first observed coming from a focus tube. Later it was found that they are emitted by an Auer incandescent gas mantle and by an ordinary gas flame, but not by the blue flame of a Bunsen burner. The sun emits them in abundance. The Nernst lamp is a prolific source, and the filament continues to emit them for several hours after the light is extinguished. A strip of metal, as silver or platinum, heated to redness is a very abundant source of the rays. Jegou found that a wire carrying an electric current was a source of N rays. He also observed that a simple means of producing them consisted in closing the circuit of a Leclanche element for a time. The liquid of the cell apparently absorbs the rays, and then becomes an energetic source of them. Compression, torsion and strain of many solids will cause an emission of the rays.

Of extreme interest are the physiologic sources of these rays. Charpentier showed that the luminosity of phosphorescent bodies was increased in the vicinity of a muscle, especially when contracting. The same is true for nerves and nerve centers, the brightness varying with the activity of the tissue. By this means it is possible to trace out the course of nerves, such as the median, the ulnar, or the fibers near the skin. The area of the heart and diaphragm can be mapped out, owing to the muscular activity of these structures. Interesting observations were made on the spinal cord. The course of the cord could be clearly traced. When the arm contracts, the emission of rays from the cervical enlargement increases the luminosity of the sulphid screen, indicating an increased activity of this part of the spinal cord. The area of Broca can be mapped out, and a difference observed between the right and left sides of the brain, the latter having the greater effect on the phosphorescent screen. It is interesting to note that inhibitory phenomena, such as the suppression of glandular activity or inhibition of the heart by the vagus, cause an increase in the emission of the rays. This is analogous to the heat given off at the moment of cardiac inhibition.

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[1] See Comptes Rendus de l'Acad. des Sciences, 1903-04.

The eye is found to be a *prolific source of N rays.* On the other hand, the sensitiveness of the eye is increased under their influence. This effect can be produced also by allowing the rays merely to effect the ocular centers in the brain. In fact, it has been found that the other senses—taste, smell and hearing—all become more acute under their influence. Meyer has shown that the rays are emitted by plants. The active parts, such as the green leaves and the small roots, give them off in abundance. The colorless plants also emit them. He concludes that the emission of these rays is a *function of nutritional activity.* Lambert observed that they are emitted during the action of a ferment on albuminous substances. This may be the real explanation of their occurrence in living tissues, for in the cells processes controlled by enzymes are continually taking place, and, in fact, life may be dependent on such activity.

These radiations may be observed by making use of the following instructions, which we quote from the *Scientific American:*

> A quantity of sulphid of calcium (phosphorescent) is spread on a piece of black cardboard and fixed by collodion so as to form a thin layer; the spot should be at least 0.8 inch in diameter. It is then solarized moderately. The screen is observed in a dim light, darkening the room according to the brightness of the surface. The screen should be observed by indirect vision without looking at it too strongly. It must be remembered that the variations of brightness are produced gradually, with an inertia which depends on the thickness of the sulphid; it is therefore of advantage to diminish the thickness of the layer. The proper precautions should be taken for eliminating outside effects.

We propose to comment further on the subject next week.[2]

THE SCHOLAR AND THE STATE.

The old conception of the scholar as a man given over to debating such questions as to whether or not a crocodile is an insect, or as to how many angels can stand on the point of a needle, has long since passed away. The seclusion of learning within cloistered walls was an inevitable accompaniment of the feudal state of society. If, in that stirring age, a man with a frail body and a thoughtful mind was to live long enough to debate anything at all, it had to be within some such shelter as that afforded by the monastic life. This necessity left its impress on scholarship for generations after the conditions that had brought it into being had disappeared. In the eyes of the world the typical scholar has long been the absent-minded, myopic pedant whose harmless vagaries have been kindly tolerated by his more robust brethren of the real world. The Casaubons and the Dry-as-dusts have excited some amusement and a little pity for many generations.

The modern scholar, fortunately or unfortunately, is not of this type. For better or worse he has been drawn into the current of the life around him, and has come to share in large measure the thoughts and emotions of his fellow-beings. There are those who lament that the leisure of the college professor has given way to a multitude of appointments and engagements strictly comparable to those of a man of affairs; that the professor's study has given place to the "office," and that administrative efficiency rather than scholarly attainment is often the key to professorial advancement. Be that as it may, these features all mark the change that has taken place in the position of the scholar in the world around him. It is a curious fact that while no acute observer can doubt that such a change has occurred, the tradition of unpracticality and worldly inefficiency still lingers. This is particularly true in our own country, where the advice and opinion of the trained man and of the competent scholar are often flouted. Our newspapers, indeed, deliver brawling judgments all day long on all things unashamed, and it may be said of many of our public men, as John Morley said of Macauley, that they "seek Truth, not as she should be sought—devoutly, tentatively, and with the air of one touching the hem of a sacred garment—but clutching her by the hair of the head and dragging her after him in a kind of boisterous triumph, a prisoner of war and not a goddess."

The detachment of the scholar from the state, however, is not even here so marked as it once was. When one of the most eminent among the purely scientific members of the American medical profession consents to become president of a state board of health, when another is appointed director of public health in one of our largest cities, and when another undertakes as a public duty to direct the production of diphtheria antitoxin for a great state, it can no longer be charged that the American scholar is indifferent to the welfare of the state. The scientific man is coming to expect and the state to demand that he shall participate actively in securing for the state the benefit of the discoveries made by its individual members.

We owe our present encouraging outlook in this country very largely to the precept and example of men like Pasteur, Virchow, Koch and our recent guest, Professor Ehrlich. These men have never divorced the life of the scholar from that of the citizen, and while pursuing brilliant and recondite investigations, have still continued to apply to questions of public polity the latest and best results of modern scientific research. The conduct of a model municipal laboratory, the preparation and preservation of material for the exact standardization of diphtheria toxin and antitoxin, and the supervision and guidance of many lines of investigation undertaken for the public good are services of a kind that can be rendered only by a man who stands in the forefront of scientific investigation. They can be rendered only by one who possesses that genius for executive work which is no less necessary for the planning and carrying out of elaborate scientific researches than for the effective control of practical measures directly affecting the public health.

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[2] Abstracts of articles on the N rays and editorial comments have appeared in The Journal, Jan. 23, 1904, p. 275, abstract 59; February 6, p. 404, abstract 14, and March 19, p. 804, abstract 34.

The services of the investigator to the state are in a measure their own reward, but it has also happened more than once in the history of science that investigations undertaken with a practical end in view have led ultimately to far-reaching theoretical advances. It is a familiar story how Louis Pasteur, a scholar who recognized in full measure his responsibilities to the state, became fired with the ambition to produce a French beer that should equal the best German beers. The outcome of this patriotic ardor was the germ theory of fermentation, which in turn gave birth to the germ theory of disease and revolutionized modern medicine. In the same way it is true that Professor Ehrlich's attempt to obtain an accurate standard for diphtheria toxin and antitoxin has not only successfully accomplished the immediate results sought for, but has led him on to brilliant and far-reaching theoretical considerations, which have already profoundly influenced medical thought and practice, and have opened up vistas of future progress along which the scientific imagination travels in excited anticipation.

THE OCCURRENCE OF THE WIDAL REACTION IN JAUNDICE.

From its earliest use it has been known that certain errors were liable to occur in connection with the Widal test for typhoid, especially with regard to the degree of dilution of the blood to be tested and the time-limit of observation, but these possible errors have been so frequently pointed out and are so easily avoidable that the profession in general has had a great deal of confidence in the reaction. Within the last two or three years a further source of error has been pointed out, namely, the fact that certain cases of jaundice give the Widal reaction, and seemingly with dilutions as high as those generally used in the diagnosis of typhoid fever.

This aspect of the question has been reviewed by Libman[1] in this country, and by Steinberg[2] in Germany. Libman comes to the conclusion that jaundice *per se* does not cause the agglutinating substances to appear in the blood. The reported cases in which jaundice was accompanied with the Widal reaction, he believes, were atypical cases of typhoid or cases in which certain sequelæ of the disease associated with the typhoid bacillus were present. In some cases in which this assumption was positively disproved, he thinks that there was an infection with some germ closely allied to the typhoid bacillus giving rise to the so-called group reaction, or that an improper interpretation of the reaction was made. In four cases of his own in which jaundice was accompanied by the Widal reaction, he was able to demonstrate the typhoid bacillus or some allied organism in every case.

The conclusions reached by Steinberg are very similar to those of Libman. He also points out that jaundice itself is incapable of producing the reaction, this fact being shown both by the negative Widal in many cases of human jaundice, and also by experimental work on the lower animals. Experiments made on animals by injecting them with the different constituents of bile also show that no single constituent or group of constituents of this fluid can cause the reaction. He argues from this that there must be some factor in cases of icterus with the Widal reaction which is not present in all cases of jaundice. His own work and his interpretation of the literature lead him to think that this factor is infection, and he urges that only in infectious icterus is the Widal reaction present. The infectious agent in most of these cases has been shown to be either the typhoid bacillus or a closely allied organism, as the colon, proteus or paratyphoid bacillus. In a few cases, according to Steinberg, this has not been the case, only the ordinary pus cocci having been found. Steinberg lays stress in these cases on the group reaction, just as Libman does, but he calls attention also to the great peculiarities of individual reaction, and thinks that they play an important part in some cases.

The results of these investigations should lead us to exercise greater care in the interpretation of serum reactions in general, and in jaundice cases in particular, though as typhoid cases with jaundice are relatively rare, they are not of surpassing practical importance.

MEDICAL ADVERTISING.

One of the hopeful features of the modern movement in advertising is the announcement from several important magazines that medical advertising is no longer to find a place in their columns. Some time ago we called attention to the fact that the managers of the *New York Times* had issued a card describing their policy with regard to advertising, and refusing to give place in their columns to medical advertisers of any kind. More recently the *Ladies' Home Journal* has made the same announcement. Through agents, it has now become well understood that certain other publications will not renew contracts for advertising space with patent-medicine houses.

This is certainly encouraging. Any sensible man who studies the advertising announcements of the proprietary medicine house, or of the advertising quacks and specialists, can not fail to be impressed with the idea that their only object is to make money and not at all to do any good to the deluded victims, who, urged on by illness, real or imaginary, apply to them with the hope of relief. There was a time when it was considered not improper to advertise lotteries of various kinds, until the amount of cheating and imposition involved in such concerns finally brought them under the governmental power which regulates the passage of matter through the mails. Modern medical advertising would remind one very much of lottery announcements written in alluring style, but with no prizes. Surely they, too, should come under governmental control in the same way.

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[1] Medical News, No. 5, 1904.

[2] Münchener med. Woch., No. 2, 1904.

Often very little investigation would show that not only do the so-called patent medicines furnished by advertising firms accomplish no good, but that they actually tend at last to do harm. Consumptives, grasping at a straw, and discouraged by the progress of their disease, are tempted to try some of the highly vaunted remedies so alluringly brought to their notice by the newspapers, and as most of these remedies contain materials that disturb the stomach and lock up the secretions, consequently doing harm rather than good, precious time, in which the consumptive by means of fresh air and good food might really have been making headway against his disease, is lost, until finally further resistance to its progress becomes impossible. Only too often does one hear the story that women suffering from carcinoma of the uterus have taken for months some remedy for female troubles, which has delayed their application to a physician until operations are either hopeless or have become much less likely to prove life-saving.

Why, then, should not the restriction with regard to sending improper material through the mails apply to papers containing swindling patent-medicine advertisements as well as to attempts of swindlers of other kinds? Beside, many of them are so worded as to be actually obscene. There is the absurd stuff about sexual weakness, lost manhood, shrunken parts, about loss of virility and the like, sure to be the source of unhealthy curiosity on the part of young people, beside giving rise to many imaginary ailments that for a time make life miserable for young adults. Supposed abortifacients are paraded with the most nauseating publicity.

Reputable papers must, if they would keep their reputation, take up this newer policy of giving their readers truth, not only in the news columns, but also in the advertising columns, and there is seldom truth in patent-medicine announcements.

Unfortunately there are many religious newspapers that still seem to consider that they can accept medical advertisements without belittling themselves. The reason is very evident—money is needed to run a paper, and nowhere is it more plentiful nor can better terms for advertising space be obtained than among the medical advertisers. This very reason ought to stamp such demands as suspicious. Money is easily made where questionable means are employed and where value is not given for payments made. There is absolutely no excuse for the lax attitude of the managing editors of religious periodicals in this matter. Nothing can justify their lending of the influence which their spiritual position gives them to help conscienceless money-makers to exploit the sick and afflicted.

EDDYITES STILL TRIMMING.

Apropos to a recent death in Buffalo, N. Y., from diphtheria under Eddyite treatment, the Christian Science publication committee sends to a lay paper a communication quoting from the by-laws of the Christian Science church to the following effect: "If a member of this church has a patient that he does not heal, and whose case he can not fully diagnose, he can consult with an M.D. on the anatomy involved." This is a concession. It must be a recent one, as we doubt it was included in Mrs. Eddy's inspiration, and there probably will be many more such, including permission for consultation on the physiology, pathology, and even therapeutics in the future. The statement illustrates pretty well the fact that Eddyism is a cult that intends to live, whether its doctrines do or do not, and that the profitess will have her successors, probably in the money-making syndicate, which, we believe, at present controls the concern.

AMERICAN LITERATURE ABROAD.

Dr. C. A. L. Reed, a former president of the Association, is a contributor to the April number of the *Review of Reviews* in an interesting article on American literature abroad. From the inquiry which he has made he finds that the English language is but little cultivated in many continental countries, where American literature is hardly felt as an intellectual stimulus. He suggests a propaganda something on the order of the Alliance Francaise, an institution devoted to the spreading of the French language and literature throughout the world. Such an organization, he thinks, would go far to raise the opinion of American civilization and broaden the culture of the people among whom it existed. Dr. Reed is already known as a literary man by various contributions, and in this case has stepped well outside the medical line, but is as original and interesting in this as in everything else. We may sometime take occasion to notice more extensively the extra-medical contributions of American physicians, which are by no means insignificant, though the part that the profession takes in general literature is hardly recognized by the reading public.

LUMBAR PUNCTURE IN UREMIA.

Although lumbar puncture was originally introduced as a diagnostic rather than a therapeutic measure, cases have not been wanting to show that the proceeding is sometimes followed by improvement in symptoms. It has been frequently noted during the epidemics of cerebrospinal meningitis which have occurred in recent years, that a great improvement occurred in many cases following the removal of spinal fluid, and a similar improvement has also been noted in one or two cases of spinal hemorrhage. Seiffert[1] has just reported some remarkable results from the use of lumbar puncture in uremia. His experience covers only cases of uremia occurring as a complication of scarlatinal nephritis. In several such cases he withdrew from five to thirty cubic centimeters of spinal fluid with excellent results. Cases are reported with cramps, loss of consciousness and stertorous breathing, which, under this treatment, recovered consciousness in half an hour, and subsequently recovered entirely. According to Seiffert, one puncture is all that is generally necessary. He briefly quotes a French writer who has recently treated uremia from kidney lesions other than scarlatinal nephritis by this method, and urges that the results obtained strongly suggest that a more extensive trial be given the method.

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[1] Münchener med. Woch., No. 10, 1904.

THE COAGULATION OF STARCH.

Any question concerning the chemistry of starch can not fail to excite the interest of biologists, especially those interested in physiology. One of the difficult problems in botany has been the manner in which starch is formed and deposited in the cells of plants. Having once been formed its transformations into the dextrins and sugars is better known. Wolff and Fernbach[1] have performed some interesting experiments tending to throw much light on this problem. They have succeeded in extracting from grains in the course of germination, green leaves, etc., a diastase which they call amylo-coagulase, and which has the property of precipitating soluble starch from its solutions. This ferment seems to be an entirely different substance from amylase, which is also present in such substances, for its coagulating power is completely lost by heating to 65 C. for five minutes, whereas the liquefying and saccharifying properties of the amylase is retained even when heated to 70 C. The action, therefore, can not be explained as a reversible process due to amylase. The study of such substances may throw much light on the so-called reversibility of enzyme action, which apparently does not rest on an absolutely secure basis.

THE CORRECTION OF FECAL INCONTINENCE BY SUBMUCOUS INJECTION OF PARAFFIN.

Incontinence of feces is such an annoying complication of a number of disorders that any means promising good results in its correction should be cordially welcomed. In some instances the sphincter still retains some power, but not sufficient to close completely the anal orifice, while in other instances the paralysis of the sphincter is complete. It has been suggested that under the conditions first noted the lumen of the bowel can be narrowed by the injection of paraffin into the submucous tissues on the inner surface of the sphincter, and thus diminish the work of the latter, so that it may be adequate to occlude the remaining lumen. For the cases of the second group various plastic procedures have been recommended, with the object of surrounding the anus with muscular fibers diverted from their natural function, the gluteus maximus and the levator ani being the muscles ordinarily utilized for this purpose. Attempts, frequently unsuccessful, have been made to give the wall of the rectum a valvular action, by dissecting out this portion of the bowel, twisting it on its long axis and refixing it, or by producing a sharp curvature or kink in its lower portion. In two cases of the latter character Mr. H. A. Burgess[2] obtained good results by the injection of paraffin into the lower portion of the rectal wall. The condition was due in the first instance to operations for the relief of anal fistula, and it had not yielded to two corrective plastic operations. The second case, in a boy of seven, was complicated by a prolapse of the rectum, and both conditions had been present from infancy. In the latter, following correction of the fecal incontinence by the injection of paraffin, a plastic operation was successfully performed for the reduction of the abnormally large anus.

THE PROGNOSIS OF TYPHOID FEVER.

It seems certain that the prevalence of typhoid fever has been diminished in no small measure since its exciting cause has been demonstrated, and the necessary steps have been taken to restrict the dissemination of the typhoid bacillus. To this end care in the disposal of the discharges, particularly the feces and the urine, and the insurance of an uncontaminated water supply have largely contributed. It is equally certain that hand in hand with this reduction in the morbidity there has been a lowering of the mortality, as a result of the institution of rational therapeusis, including especially the practice of systematic cold bathing, according to the method of Brand. There is still considerable room for improvement in both of the directions named, and the amount of typhoid fever in a community may be considered as an index of its hygienic intelligence. While the prognosis of the disease in general is thus relatively favorable, it is by no means easy to predicate the outcome in the individual case. It may, therefore, be useful to note the conclusions reached in this connection by Dr. R. E. Sedgwick[1] as a result of observations made in 460 cases of typhoid fever. He finds that the younger the patient the more favorable the prognosis, as mild cases are commonest in the young, while fatal complications are more likely to occur in the old. If the onset of the disease be gradual, the case is likely to prove a mild one; but if the onset be sudden, a severe attack may be anticipated. If the case occurs during an outbreak of typhoid fever, the general character of the outbreak may be of guiding value in prognosis, consideration being given, however, to the age and the constitution of the patient. The degree of pyrexia need not of itself be regarded as unfavorable in a patient of strong bodily health. The pulse-rate is a good indication of the severity of the attack. Sudden changes in the pulse-rate are important as indicating the onset of complications. Constipation is to be looked on as a favorable symptom as contrasted with diarrhea, which is unfavorable. Meteorism is an unfavorable symptom, as it predisposes to perforation. Should perforation occur, operative measures hold out the best chance. Dryness of the tongue is a valuable guide in prognosis. Intestinal hemorrhage occurs chiefly in serious cases. The earlier it occurs the more serious its significance. Early nervous symptoms must be regarded with concern, as an indication either of the severity of the attack or lack of resistance on the part of the patient. Most of the complications —of which perforation, peritonitis and pneumonia are to be considered among the most serious—tend toward recovery. When perforation occurs the only treatment consists in abdominal section, with repair of the lesion. The chances of recovery are better in patients treated in hospitals than those treated in their homes.

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[1] Comp. Rendus. Acad. Sciences, vol. cxxvii, No. 18, 1903.

[2] Lancet, March 12, 1904, p. 716.

[1] Birmingham Medical Review, February, 1904, p. 70.

VIVISECTION.

In the *Outlook* of April 9 appear two papers on the vivisection problem, both of which are somewhat noteworthy. The first, by Bishop Lawrence of Massachusetts, takes the stand which we think is held by most cultured and enlightened people at the present day, viz., that the benefits that vivisection has accomplished for mankind far outbalance any necessary suffering that may be inflicted on the lower animals; even the single matter of antitoxin in diphtheria, which is quoted by the Bishop, is enough to redeem it from the charges that have been made. The sacrifice of many of the lower animals for the sake of preventing mortality and suffering is justifiable in every sense of the word. The question arises whether this should be regulated, and Bishop Lawrence gives rational objections to the regulation as they appear to him. Dr. Leffingwell's paper is far more temperate than would be expected from the utterances that have been credited to him in the past. He does not deny the utility of vivisection, but claims that the practice of it is abused, and that it is carried on needlessly and with unnecessary cruelty to the subjects; therefore, legal regulation should be required, together with periodical inspection and publication of all experiments. He is studiously temperate in his language, and yet he says a few things which seem to indicate an unjudicial state of mind on the subject. The party, however, with which he trains at the present time certainly would not be fully satisfied with his utterances in this communication. One has only to read the editorials in the little anti-vivisection papers which are sent to nearly every publication in the country to appreciate this fact. Legal regulation, if brought about through the efforts of these individuals, would be more or less influenced by their opinions and scientific research would be seriously hampered. The objections to this are well stated by Bishop Lawrence, and he points out that in Great Britain, under the restrictions now required, the work of scientific research is notably crippled. The editorial notice in the *Outlook* discusses the subject in a thoroughly common-sense point of view, and gives what we believe is the consensus of opinion of thinking people on the subject at the present time. The world appreciates the benefits which vivisection has produced in the relief of disease, the lessening of human and animal suffering, for it is not mankind alone that benefits by these researches. One of the greatest of American writers, in perhaps one of his most striking productions, portrayed the narrowing and dehumanizing effect of a too self-concentrated devotion to a philanthropic hobby. There is nothing more tempting to human weakness than an overestimated self-conscious virtue, and its evil influences on the human character are amply portrayed in modern zoophily. Humanity is the last of their thoughts to all appearances, their sympathies are wrapped up in the lower creatures and the welfare of their own species is hardly considered. Even the ordinary moral requirements are sacrificed to the holy cause which has become their idol, as is shown in the recent misrepresentations abroad, the legal consequences of which were somewhat unfortunate to the leader of the British antivivisectionists. It is to be hoped that the common sense of the majority will not be overcome by the dictation of a fanatic and narrowed philanthropy or zoophily in this matter so important for the advancement of science and medicine and for the welfare of the world.

RATES TO ATLANTIC CITY SESSION.

As we go to press we learn that the Central Passenger Association has granted half rates to the coming session of the American Medical Association. Thus two of the most important passenger associations have granted this rate, and it is likely that the rate will now prevail all over the country.

Medical News.

ILLINOIS.

Societies Favor Heyburn Bill.—Will County and Jersey County medical societies have endorsed the Heyburn pure-food bill, and have signed a petition urging its passage.

Ill and Recovering.—Dr. Ezra H. Ferris, a retired physician of Champaign, is reported to be seriously ill.——Dr. Arthur F. Comings, Rockford, who has been ill since January, resumed practice April 4.

Elgin Hospital to Be Enlarged.—Sherman Hospital, Elgin, which is under the charge of the Elgin Woman's Club, is to have an addition to cost about $20,000. The greater part of this amount has been received by bequests or gifts.

Society's Golden Jubilee.—On April 7 McLean County Medical Society celebrated its semi-centenary by a banquet at Bloomington, at which about 150 were present. Dr. Franklin C. Vandervort, president of the society, was toast master. The following toasts were proposed: "Medical Organization," Dr. Otho B. Will, Peoria; "History of the Society, 1854-1879," Dr. Charles R. Parke, Louisville, Ky.; "History of the Society, 1880-1904," Dr. William E. Guthrie, Bloomington, and "The Future of the Society," Dr. James B. Taylor, Bloomington.

Chicago.

Easter Hospital Collection.—The Easter offerings in the Presbyterian churches of Chicago amounted to about $6,000, which goes to aid the Presbyterian Hospital.

No Prosecution.—The case against "Dr." A. W. Van Bysterveld of Englewood and Muskegon, Mich., was dismissed April 4 for lack of prosecution. He was charged with mistreating a defective girl patient whose father shot the alleged physician in the leg.

Decrease in Death Rate.—During the week ended April 9 562 deaths were reported, 14 less than for the previous week, and 64 less than in the week before, the respective annual rates per 1,000 being 15.03, 15.40 and 16.32. Pneumonia caused 127, or nearly 22.6 per cent., of the deaths; consumption, 65; heart diseases, 49; Bright's disease, 42, and violence, 33 deaths.

Alumni Dine.—Fifty members and invited guests of the Western Alumni Association of the University and Bellevue Hospital Medical College, New York, met at the annual banquet April 11. Dr. David W. Graham was toastmaster and toasts were responded to by Drs. Egbert LeFevre and Joseph D. Bryant of New York City; Dr. Green V. Woollen, Indianapolis, and Dr. John M. Ristine, Cedar Rapids, Iowa. Dr. Charles C. Hunt, Dixon, was elected president of the association.

Increased Mortality.—The record which the Department of Health calls its "sanitary balance-sheet," which at the end of 1894 covered a period of forty-four years—1857-1894—showed that, comparing the mortality of the first and last decades, the deaths from nervous diseases had increased 80 per cent.; from Bright's disease, 94 per cent.; from cholera infantum, 123 per cent.; from pneumonia, 160 per cent.; from bronchitis, 330 per cent.; from heart disease, 360 per cent., and from cancer, 812 per cent.

Decreased Mortality from Nervous Diseases.—Comparing this decade with the previous one, there is shown a decrease of 40.2 per cent. in the mortality from all forms of nervous disease, and of nearly 60 per cent. in the deaths from convulsions. Better hygiene of child life, better milk supply, better knowledge among mothers, sufficiently account for this latter reduction; the Department of Health remarks that it is not so obvious what has caused the reduction of more than one-fourth in the deaths of adults from nervous diseases.

MARYLAND.

Regulation of Barber Shops.—A bill has passed both branches of the legislature regulating the practice of barbering, establishing a state board of barber examiners and providing for the sanitary inspection of barber shops.

Sewerage Bill Passed.—The sewerage bill has passed the legislature after a hard struggle extending over twenty years, and it is ready for submission to the people. It provides for a ten-million-dollar loan. As a six-million-dollar loan has already been provided for improvement of wharves and docks destroyed by the fire, and as the sewerage loan will have to be provided by direct taxation, it will have to be deferred for the present and submitted later to popular vote.

New-Made Laws.—The governor has signed the following bills: Authorizing Hagerstown to build a hospital and to borrow money for drainage system; authorizing Washington County to levy money for a hospital at Hagerstown; state registration of nurses; creating barber inspectors; to incorporate sewer company of Salisbury; to protect the citizens from certain communicable diseases, especially tuberculosis of lungs and larynx; omnibus appropriation bill. The items of the omnibus bill were published in The Journal, April 2, p. 900, April 9, p. 963. It passed with the following changes: Increase appropriation of Baltimore Eye, Ear and Throat Hospital from $2,000 to $5,000 annually, and cut off appropriation of $10,000 for new building; allow $5,000 annually to Union Hospital of Cecil County, provided an equal amount is subscribed privately; allow $5,000 per annum to pay indebtedness of Springfield Hospital for the Insane; allow St. Agnes Hospital $3,000 annually, and Franklin Square Hospital $3,000 annually and $1,000 additional for 1905 to aid in equipment and furnishing.

Baltimore.

Fined for Contempt of Court.—Dr. Frank G. Moyer, for failing to appear as witness, after having been summoned, was fined $27.50, in the Court of Common Pleas, March 29.

Resumes Practice.—Dr. Alexander Hill, formerly fire department physician, has recovered his health after two operations for a large growth involving mouth, throat and neck, and will resume practice.

Physician Wins Suit.—The suit in the Superior Court against Dr. William H. Burch, for alleged incompetent setting and treatment of a broken limb, $5,000 damages being claimed, has been decided in favor of the defendant.

Distinguished Frenchmen Visit Baltimore.—Drs. Jean Louis Faure and Stephen Merlin of France were the guests of Dr. Howard A. Kelly last week. The former, who is a surgeon of note, lectured and operated at the Johns Hopkins Hospital. They left for Florida, April 8, and will make a tour of the country.

Personal.—Dr. H. Lee Franks has resigned as health warden, and the health commissioner has appointed Dr. Clarence P. Erkenbrack to the vacancy.——Dr. Dudley Williams, Boston, will make Baltimore his home.——Prof. George M. Stratton, associate professor of psychology in the University of California, has accepted the professorship of experimental psychology in the Johns Hopkins University, and will enter on his new duties in the fall. He has done much original work on the senses, especially vision, and is also said to be a successful teacher and very effective lecturer.

Deaths and Smallpox.—There were 229 deaths last week, an annual rate of 21.43 per 1,000. The principal causes were consumption, 36; pneumonia, 30; heart disease, 21; Bright's disease, 18; congestion of brain, 11; cancer, 10, and influenza, 8. Two cases of smallpox were reported. The health commissioner has been allowed $1,000 for expenses in fighting smallpox. He stated that there had been 15 cases since January 1, and that 25 persons were now quartered at the quarantine detention barracks who had to be cared for. He expected to have 15,000 persons vaccinated last week.

Medical Club Anniversary.—The Rush Medical Club, a students' club of the University of Maryland, held its fifty-fourth anniversary celebration, March 26. It was founded in April or May, 1850, by seven students as a quiz club, and has kept up an unbroken existence to the present time. The present membership is 20. It is one of the oldest, if not the oldest, of the students' medical clubs in this country. The founder of the club, Dr. William J. Wroth, Baltimore, now in his seventy-fifth year, was present, and addresses were made by him, Drs. Randolph Winslow, Harry Adler, Hiram Woods, W. T. Watson, and A. S. Matthews. Dr. E. F. Cordell read a historical sketch of the club.

Endowment for University Medical School.—The Alumni Association of the Medical Department of the University of Maryland is endeavoring to secure a permanent endowment fund for the school of medicine. The following constitute the present board of trustees of this fund: Judge Henry D. Harlan, Gen. Lawrason Riggs, Dr. Samuel C. Chew, Dr. I. E. Atkinson, Mr. Clayton C. Hall, Mr. Allan McSherry, Dr. Thomas A. Ashby, Dr. Charles G. W. MacGill and Dr. Eugene F. Cordell. Last year the will of Dr. W. H. Crim bequeathed directly to the medical department his entire estate after the decease of certain beneficiaries. The sale of the renowned Crim antiques amounted at that time alone to over $70,000. However, this bequest for many years will not be available to assist the university.

The Rockefeller Gift to the Johns Hopkins Hospital.—As announced last week, Mr. John D. Rockefeller has given $500,000 to the Johns Hopkins Hospital to prevent the curtailment of usefulness of that institution by the losses incurred by the great fire. The money is given outright and will be turned over to the trustees in whatever form they elect. A few days after the fire the matter was brought to the attention of Mr. Rockefeller by Drs. William Osler and William H. Welch, and Mr. Rockefeller sent his attorney to Baltimore to investigate. The attorney spent two days in Baltimore. Nothing further was heard until April 5, nearly two months, and the friends of the institution began to lose heart. On that day a letter was received by Dr. Osler from Mr. Rockefeller, Jr., saying that "in view of the high character of work which the hospital and medical school are doing in medical instruction and research, including the training of nurses, which work, he understands, will be otherwise materially curtailed because of losses," his father had determined to give the amount named to the hospital. Mr. Rockefeller's attorney estimated the losses at about $499,137. It is said that Mr. Rockefeller could not have been more careful in his investigation of the affairs of the hospital if he had contemplated investing money in it for the purpose of gain. Every item in the annual statement of the hospital was carefully gone over by the agent, and every one of its investments was carefully scrutinized. Judge Harlan, president of the board of trustees of the hospital, had prepared a list of well-known philanthropists with a view of appealing to them, but on the advice of Dr. Welch no action was taken until Mr. Rockefeller was heard from. The value of the property destroyed aggregated about $1,300,000, and the net loss to the institution was about $500,000. The gift will not permit of extension of the operations of the hospital; it will not, therefore, be devoted to any special purpose, but to the continuance of the work hitherto done without any curtailment. The burned property will be rebuilt and it is hoped that its value will increase and the good work of the hospital be thus augmented. The credit of this great benefaction is ascribed to Drs. Welch and Osler. It is said that Mr. Rockefeller became interested in medical research through a copy of Dr. Osler's "Practice of Medicine," which was sent him by his agent, Mr. Gates, and that the influence thus exerted led him to the gifts of the $200,000 to the Rockefeller Institute, supplemented later by $1,000,000 for the permanent home of the institute in New York, and also the gift of $1,000,000 made to Harvard University Medical School. The Rockefeller Institute for Medical Research was incorporated in June, 1901, under Dr. Welch as president, and others. The work has been carried on in a number of university laboratories. Last year it was decided to secure a permanent home, and three blocks of land in New York City, extending from Sixty-fourth to Sixty-seventh street, along Avenue A, were purchased for $700,000. Dr. Simon Flexner, formerly connected with the University of Pennsylvania, and Johns Hopkins Medical School, is in charge of it. Dr. Osler is of the opinion that Mr. Rockefeller's gift to the Hopkins Hospital will be followed by other gifts which will enable the work of the hospital to expand. The hospital has not received many gifts, compared with other institutions. Dr. Howard A. Kelly gave about $20,000 for a new operating room and an addition to the gynecological wards. Two ladies of Baltimore gave $6,000 for the tuberculosis work, and Mr. Henry Phipps' recent gift of $20,000 for the same object is fresh in memory. The governor of Maryland and the mayor of Baltimore have both expressed to Mr. Rockefeller the thanks of state and city for his noble benefaction.

MASSACHUSETTS.

Will Filed.—The will of the late Dr. J. Henry Robinson, Southboro, has been filed. The estate is appraised at $76,000.

Golden Wedding.—Dr. and Mrs. Joshua B. Gould, West Somerville, celebrated the fiftieth anniversary of their marriage March 23.

Bequests.—The late Senator Tyner, Holyoke, in his will devised $10,000 each to the Holyoke City Hospital and to the House of Providence Hospital.

Dealers in Impure Milk Fined.—Two milkmen, who sell to stores and private houses, and four store-keepers were fined, April 4, in the Charlestown Court, for the poor quality of the milk in their possession.

Visiting Nurses.—The Instructive District Nursing Association reports that their 15 nurses cared for 7,657 patients in 1903, making 75,000 visits. The expenses were $15,053, leaving a deficit of about $1,300.

The Emergency Hospital in Salem is flourishing. A new wing containing four wards is nearly ready for occupancy, and property in another part of the city has been leased for a branch, which will be established at once.

To Establish Tuberculosis Hospital.—The committee of public charitable institutions has introduced in the Massachusetts legislature a bill to establish the Massachusetts hospital for consumptives with a board of five trustees and an appropriation of $150,000.

Eventual Bequest.—Under the will of Mrs. Hannah K. Grant her interest in a Salem estate is awarded to her sister, after whose death it is to go to the Salem Hospital Corporation. On similar conditions the hospital eventually will receive one-fourth of the residue of her estate.

Personal.—Dr. Orville W. Collins, South Framingham, has been appointed assistant surgeon for the Boston and Albany system, between Riverside and Westboro.——Dr. Edward Roth, Vineyard Haven, has qualified as medical examiner for the northern district of Duke's County.

NEBRASKA.

Schools Closed.—Owing to the prevalence of diphtheria in the country round about Bertrand, the public schools have been ordered to be closed for two weeks.

Mishaps to Physicians.—Dr. Andrew D. Nesbit, Tekamah, is recovering from a serious operation on the ear, performed a month ago.——Dr. Marshall D. Bedal, Blair, has been declared insane, and committed to the insane hospital at Lincoln.

Healer Cast Out.—"Dr." Frank H. Peters, a so-called "magnetic healer" of Beatrice, against whom 30 charges of practicing medicine without a license had been filed, was found guilty on one count and fined $50 and costs. On his promise to leave the state, the other charges against him were dismissed.

Tuberculosis Must Be Reported.—According to a ruling of the State Board of Health physicians are required to report promptly all cases of consumption, so that they may be quarantined when necessary. Any physician, householder or landlord who fails to comply is subject to a fine of $100. Consumption is thus formally included in the list of contagious diseases.

NEW HAMPSHIRE.

Quarter of a Century Old.—The Portsmouth Medical Association celebrated the twenty-fifth anniversary of its organization, April 5, by a banquet, at which 22 were present.

Hospital for Dover.—The executors of the late Arioch Wentworth of Boston have paid over to the authorities of Dover $100,000, for the establishment of the New Wentworth Hospital in that city.

Personal.—Dr. Percy Bartlett has been made instructor in anatomy in the Dartmouth Medical College, Hanover.——Dr. A. E. O'Connell has secured the position of house physician at the Mary Hitchcock Memorial Hospital, Hanover.——Dr. and Mrs. Moses C. Lathrop, Dover, recently celebrated their golden wedding anniversary.

Society for Prevention of Consumption.—The New Hampshire Society for the Prevention of Consumption was organized with headquarters at Concord, "to instruct consumptives in the ways and means to prevent the spread of the infection, and to better their physical condition." Dr. Orlando B. Douglass, Concord, was elected chairman; Dr. John H. Neal, Rochester, treasurer, and Dr. Henri T. Fontaine, Concord, secretary.

NEW JERSEY.

Against Consumption.—Orange has an anti-tuberculosis committee and has started an active crusade against the disease. A free dispensary for tuberculous patients, with daily clinics, is one of the weapons.

Medical Examiners Reappointed.—On March 25 Governor Murphy reappointed the following physicians members of the New Jersey Board of Medical Examiners: Drs. Armin Uebelacker, Morristown; William Perry Watson, Jersey City, and William H. Shipps, Bordentown.

Thousands for Hospitals.—The total appropriation for the State Tuberculosis Sanitarium amounts to $265,000.——Nearly $13,000 has been received for the building fund of the North Hudson Hospital, Union Hill.——The building fund of the Mountainside Hospital, Montclair, now amounts to $36,542.25.

Personal.—Dr. James M. Stewart, Paterson, was appointed a member of the tenement house commission by the governor.——Major Charles R. Blundell, Paterson, surgeon Fifth Infantry, has resigned.——Dr. Talbot R. Chambers, for nine years in charge of the eye, ear, nose and throat department of the Jersey City Hospital, has resigned, and Dr. Wallace B. Pyle has been elected his successor.——Dr. Archibald Mercer, Newark, is recovering from an operation for appendicitis, performed March 30.——Dr. L. Eugene Hollister has been appointed a member of the Newark Board of Health, vice Dr. David L. Wallace, deceased.

NEW YORK.

Smallpox in Buffalo.—Several smallpox cases have been found by the Buffalo Health Department.

Bill for a Letter.—The senate has passed Senator Whitlock's bill to change the name of the Bushwick Hospital, Brooklyn, to Bushwyck Hospital.

Typhoid in Vassar Hospital.—There are 25 cases of typhoid fever in the Vassar Brothers' Hospital, Poughkeepsie. The source of the infection has not yet been determined.

Erie County Society Ratifies.—A special meeting of the Erie County Medical Society was held in Buffalo, April 9, at which the report of the joint committee of conference on consolidating the Medical Society of the State of New York and the New York State Medical Association was approved.

Preventable Epidemics Expensive.—Dr. Daniel Lewis, state health commissioner, calculates the loss in the state during 1903 from five preventable diseases at $94,960,000, estimating the value of a life as $5,000. He does not consider in this aggregate the losses from injury to business due to quarantining localities where infectious diseases exist.

New Health Officers.—The following are among recent appointments as health officers: Dr. William Taylor, Canastota; J. Spencer Purdy, Seneca Falls; Dr. Cyrus Kay, Herkimer; Dr. Charles V. Patchin, Dansville; Dr. John H. Doughty, Matteawan; Dr. I. C. Washburn, Chatham; Dr. Jacob A. Rich, Greenwich; Dr. William N. Campaigne, Green Island; Dr. William T. Tanner, Oneida; Dr. Bentley S. Bourne, Hamburg; Dr. John F. Carleton, Waterloo; Dr. George F. Rogan, Medina, and Dr. Thomas E. Spalding, Salamanca.

Personal.—Dr. Charles W. Pilgrim, superintendent of the Hudson River State Hospital for the Insane, Poughkeepsie, has been appointed president of the State Commission in Lunacy. His acceptance of this position was dependent on the assurance that partisan politics would not shorten his term of office.——Dr. Philip C. Washburn, Watertown, who has been in charge of the High School Typhoid Hospital, has been appointed to the staff of the Manhattan State Hospital, Ward's Island.——Dr. B. C. Johnson, Buffalo, has returned from Jamaica.

Dr. Orton's Semi-Centennial.—The physicians of Binghamton and Broome County, April 5, presented to Dr. John G. Orton of Binghamton a loving cup, accompanied by their greetings and congratulations, on the fiftieth anniversary of his ending the practice of medicine in Binghamton. Dr. Orton's experience is almost unique, for he has passed by more than a score of years the average age attained by physicians, and for a half century has not only been in active practice, but during all these years has not changed his location. His record is most honorable, and the physicians of the state of New York showed their appreciation when in 1890 they elected him president of the

New York State Medical Association. So far as known, there is only one other survivor, beside Dr. Orton, of those who practiced medicine in Binghamton fifty years or more ago. The exception is Dr. N. S. Davis, now of Chicago, who is Dr. Orton's senior by nearly 11 years.

Coroner's Bill Passed.—After four years of constant effort Senator Elsberg's bill to substitute medical examiners for coroners was passed by the assembly almost without objection. The bill does not affect the coroners now in office, except that as each coroner's term expires, a successor is not to be elected. The proposed new statute provides for the appointment of a chief medical examiner and six medical examiners for Manhattan Borough, four for Brooklyn, three for Queens and two each for the Boroughs of Bronx and Richmond. They are to be physicians, and are to be appointed by the mayor, to take office Jan. 1, 1905. They are to be appointed, as far as practicable, from the coroner's physicians in office December 31, 1904. The salary of the chief medical examiner is to be $6,000 a year, and those of the medical examiners are to be $3,500 each. The medical examiners are to be a part of the department of health. They are to assume all the duties of the coroners with the exception that they are to make their reports in all suspicious deaths to the city magistrates, and if an examiner is not satisfied with the result of examination into the cause of death, he is to notify the district attorney and make an autopsy. This new bill will save $60,000 annually to the city in salaries.

New York City.

Bogus Doctor Fined.—"Dr." C. F. Starken was found guilty of practicing medicine without a license and was fined $100.

Gift to Infirmary.—Mrs. John E. Parsons has given $1,000 toward a permanent endowment fund for the New York Eye and Ear Infirmary.

Dr. Conrad Sentenced.—Dr. E. Conrad, who was convicted of attempting criminal operation, was sentenced to state prison for not more than two years nor less than one.

Fire Department Physicians.—Dr. Linnaeus J. Hunter has been appointed surgeon of the fire department for the boroughs of Manhattan and the Bronx, and Dr. James B. Kennedy for the boroughs of Brooklyn and Queens.

Smallpox on Atlantic Steamer.—The steamer *Sicilia*, which arrived off New York from Naples, April 6, with 1,118 passengers, was detained at quarantine with one case of smallpox. The patient was sent to Kingston Avenue Hospital; about 150 of his fellow passengers will go to Hoffman Island for observation, and the steamer will be disinfected.

Contagious Diseases.—For the week ended April 2, 1,265 cases of measles were reported to the sanitary bureau with 28 deaths; 343 of diphtheria and croup, with 39 deaths; 393 of scarlet fever, with 30 deaths; 56 of varicella, with no deaths; 289 of tuberculosis, with 185 deaths; 19 of typhoid fever, with 12 deaths, and 31 deaths from cerebrospinal meningitis were reported.

Annex to St. Luke's Hospital.—Plans for the large pavilion to be built for St. Luke's Hospital have been filed with the building bureau. The new pavilion is to be ten stories high, and will adjoin the present hospital building. It is to be fireproof, fully equipped for general hospital purposes, and is to have a roof garden. It is the gift of the Plant estate, and will cost about $400,000.

Personal.—Dr. William T. Bull, professor of surgery in the College of Physicians and Surgeons, has resigned.——Dr. John B. Knapp was the recipient of $5,000 "in grateful remembrance of his devotion" to the husband of Julie F. H. Nevins.——Dr. John A. Hill has been elected surgeon-in-charge of the eye, ear, nose and throat department of the Harlem Dispensary, vice Dr. Edward Fridenberg, deceased.

OHIO.

License Revoked.—The State Board of Medical Registration and Examination has revoked the license of Dr. S. V. Young, Washington.

Society Endorses Pure Food Bill.—Highland County Medical Society, at its meeting held in Hillsboro, April 6, unanimously adopted a resolution urging the passage of the Heyburn pure food and drug bill, and instructed the secretary to inform Senator Heyburn of its action.

Decrease in Infectious Diseases.—But 48 cases of infectious diseases were reported for the week ended April 10 in Cincinnati. This shows a great diminution from previous weeks, and it is hoped that the various epidemics, typhoid, measles, *and influenza*, that have been raging for so many weeks past, are now at an end.

Cincinnati Hospital Internes.—*The competitive examination for internes to the Cincinnati Hospital for the ensuing eighteen* months was decided at a meeting of the staff, April 9. The winners in order of average were as follows: Jesse S. Wyler, Medical College of Ohio; Joseph L. Ransohoff, Medical College of Ohio; Charles W. Smith, Medical College of Ohio; George S. Mytinger, Miami Medical College; Oscar Behrman, Medical College of Ohio; Oscar Berghausen, Medical College of Ohio; A. E. Osmond, Medical College of Ohio, and E. B. Reemelin, Medical College of Ohio. Alternates were elected as follows: O. D. Barber, Medical College of Ohio; Alvin D. Heavenrich, Miami Medical College; Charles D. Hersel, Medical College of Ohio; and George H. Holt, Miami Medical College. There were in all nineteen contestants, thirteen from the Medical College of Ohio and six from the Miami Medical College.

PENNSYLVANIA.

Isolation Hospital Closed.—For lack of smallpox patients the Hospital for Contagious Diseases at Chester was closed March 22.

Donation to Westchester Hospital.—P. M. Sharles donated to the Chester County Hospital $4,562, to be used in the erection of two receiving rooms and a fireproof elevator and stairway.

Half a Century in Practice.—Dr. Richard Armstrong, who has been in practice 50 years, 48 of which were spent in Lock Haven, was the guest of honor at a banquet given by the medical profession of the city, March 11.

Not Chicken-pox.—Boswell has been having a mild epidemic *diagnosed as "chicken-pox" by the local physicians. The town* is now under strict quarantine on account of smallpox, of which 18 cases have been located.——Several cases of smallpox have been discovered in Clifton Heights, Delaware County. *Every effort is being made by the local authorities to prevent* the spread of the disease.

Personal.—Dr. Jonathan C. Biddle, Fountain Springs, has been appointed assistant surgeon, and assigned to the Eighth Regiment, N. G. Pa.——Dr. Andrew H. Halberstadt has resigned as president of the Pottsville Board of Health.——Drs. J. Guy McCandless and Joseph E. Willetts, Pittsburg, have been reappointed members of the State Medical Board.——Dr. Robert F. Trainer has been appointed smallpox physician of Williamsport, vice Dr. Edward Lyon, resigned.

State Health Conference.—The next meeting of the Associated Health Authorities and Sanitarians of Pennsylvania will take place at Gettysburg, Franklin County, May 26 and 27. This will also constitute the thirteenth annual sanitary convention. The subjects of smallpox and typhoid fever, and of proper legislation for the prevention of the spread of these diseases will be very fully discussed. The registration of vital statistics and its importance to the well-being of the state will be presented in an address by Dr. Cressy L. Wilbur, the statistician of the United States Census Bureau, who for many years has been at the head of the Department of Registration of Vital Statistics of Michigan.

Philadelphia.

Personal.—Dr. Melvin M. Franklin, *a member of the major-surgical* staff of St. Joseph's Hospital, has been appointed to a similar position in the Jewish Hospital.

Summer Course at University.—The Medical Department of the University of Pennsylvania will conduct its usual summer course in medicine, beginning May 9 and extending over six weeks.

Hospital Physicians Chosen.—The trustees of Frankford Hospital, at their meeting April 2, elected the following physicians to the general staff: Drs. William H. Morrison, Charles M. Nassau and S. K. Bolton, to the major-surgical staff; E. E. Kieser to the major-medical staff, and George C. Hanna to the neurological staff.

Bequests.—Simon Muhr, in his will, left a large portion of his estate to benevolent *institutions. The following have* been benefited: Jewish Hospital, $5,000; Jefferson Medical College, $1,000; Philadelphia Home for Incurables, $1,000; Philadelphia Polyclinic, $500; Philadelphia Lying-in Charity, $400; Woman's Hospital, $400; Children's Hospital, $400, and Philadelphia Hospital for Women, $200.——By the will of Herman Stolze, the Episcopal Hospital is a beneficiary to the extent of $3,000.

Hospital Reports.—During the month of March, 79 patients were admitted to the Methodist Episcopal Hospital, and 501 were treated in the dispensary. The total visits made to the dispensary were 1,996. The Medico-Chirurgical Hospital treated 297 patients in the hospital *proper, 418 in the accident* room and 5,218 in the dispensaries.——Germantown Hospital admitted 114 patients and discharged 97. During the month 1,425 cases were treated in the dispensary.——St. Joseph's Hospital admitted 222 patients, with 141 remaining from the month of February, making a total of 363. There were 2,092 patients treated in the dispensary service.

Dr. Faure in Philadelphia.—Dr. J. L. Faure, the eminent *French surgeon and* chief of the major-surgical department in the Cochin and Trousseau hospitals at Paris, has been the guest in this city of Dr. John G. Clark, professor of gynecology in the University of Pennsylvania.' Dr. Clark gave a dinner in his honor, and those present were Drs. William W. Keen, J. Wm. White, John H. Musser, Alfred Stengel, Robert Le Conte, Hobart A. Hare, B. C. Hirst and Charles H. Frazier. Dr. Faure *and* Dr. Howard Kelly of Johns Hopkins University were also guests at a reception given at the Woman's Hospital. In a brief address Dr. Faure paid a glowing tribute to the proficiency of *women physicians in America, and deplored the fact that no* such opportunity for the study of medicine and surgery by women existed in France.

Typhoid Still Raging.—*There were 389 cases of typhoid fever* reported during the week. This is the greatest number ever reported in a similar period. The deaths from the disease reached the record-breaking number of 30, which indicates that the fever is not of a mild type. Last week there were 321 cases and 24 deaths. *That section of the city now being supplied* with filtered water seems to be particularly free from the disease. The health authorities are persuaded that the disease has reached its height. There have been 2,445 cases of typhoid fever reported in the city since January 1. The total number of deaths this week *reached 597, an increase of* 9 over those of last week, and an increase of 97 over the corresponding period of last year. The deaths from pneumonia, which have been abnormally high since January 1, numbered 90 for the week.

GENERAL.

The American Medico-Psychological Association *will meet in* St. Louis, May 30 to June 3, only morning sessions being held. Dr. C. B. Burr, *Flint*, Mich., is secretary.

City Death Rates for the Quarter.—*In the six cities having* populations of more than half a million each, viz., New York, Chicago, Philadelphia, Boston, St. Louis and Baltimore, the five mentioned below, from which statistics are furnished to the Chicago Department of Health, have the following estimated *mid-year populations* (1904), *total deaths during the first* quarter and annual death rates:

City.	Population.	Deaths.	Rate.
New York	3,437,202	21,538	25.22
Chicago	1,950,000	7,675	15.77
Philadelphia	1,408,154	8,205	23.39
Boston	517,950	2,924	18.95
Baltimore	541,000	3,058	22.73

London has a death rate very near that of the lowest one above mentioned. The bulletin of the Chicago Department of Health says that a table of vital statistics for London during 1903 gives the death ratio per 1,000 as 15.62. This is the lowest ever recorded for that city—recent previous years having rates of 17.8 for 1902, 17.4 for 1901, 19.2 for 1900 and 19.5 for 1899. The marked decrease of the last three years is accounted "a fact probably very intimately associated with the mild winters of those years."

FOREIGN.

Prosecution of a Physician by a German Court of Honor.—A certain physician of Dresden has been fined by the medical court of honor for Saxony to the extent of nearly $400 and *costs for contracting* with a charlatan.

Gratuitous Distribution of Antiseptics.—Since 1901 antidiphtheria serum has been distributed free to the poor in the province of Luxemburg. By a recent decree antiseptics are also to be dispensed free of cost to the poor.

Death of a Patient from Negligence.—Dr. H. of Ulm, has been sentenced to three months' imprisonment on account of the death of a patient in a hot air bath in his private sanitarium. The apparatus was not properly managed and the patient was burned to death.

Personal.—Dr. Roswell Park, Buffalo, N. Y., *who is in Germany* attending the German Surgical Congress, was the guest of honor, April 9, at the regular weekly meeting of the Anglo-American Medical Association of Berlin.——Dr. J. M. Swan, *surgeon in charge* of the Canton (China) Hospital, visited the Philippine Islands in March.

The Colonial Congress.—Paris is to hold a congress for general hygiene and international prophylaxis, in the week of May 29. It will be presided over by Prof. A. Charrin, with Prof. Brault of Alger as vice-president. The officials connected with any branch of the government service in the colonies are entitled to membership in the congress *ex officio*.

Anniversary of the First Injection of Calomel.—On April 7, 1864, Professor A. Scarenzio of Pavia made the first injection of calomel. His friends celebrated the fortieth anniversary of this event by presenting him with a gold medal at a banquet tendered him by Italian dermatologists and syphilologists, presided over by Professor Golgi, dean of the university.

Radium-Bearing Ore.—The Austrian authorities have set aside about 50,000 pounds of the radium-bearing pitchblend at Joachimsthal and have divided this amount between the Vienna Academy of Sciences and Professor Curie of Paris, the latter paying for his consignment. Both of the recipients must agree to use the pitchblend and its products solely for scientific purposes and *not market any of it.*

Philanthropy of the Milan Savings Bank.—The Milan Savings Bank has recently distributed nearly two million dollars among the small hospitals throughout the province of Lombardy. This benefits also indirectly the Milan hospitals, relieving *them from the influx of patients from the country* districts. The bank announces that its income is derived in large measure from the country districts, and it wants them to share *to some extent in the profits.*

Memorials to Gussenbauer and Cramer.—The little town in Carinthia where Gussenbauer was born has issued an appeal to his friends and pupils to aid in the erection of a worthy memorial to him there. Subscriptions will be received by *Prof. von Eiselsberg, Vienna 1, Mölkerbastei 5. A portrait* bust is also to be erected in memory of Prof. F. Cramer in the hospital at Wiesbaden, the seat of his labors. Subscriptions are received by the banking house of M. Berlé and Co., Wiesbaden.

Compulsory Disinfection of Rented Apartments.—The authorities of Buenos Ayres are considering an ordinance proposed by the department of health which provides that every householder must notify the board of health the moment when a tenant leaves. The board will then send an inspector and *the place can not be rented again* until the sanitary measures he deems necessary have been taken and the place disinfected. The house owner pays only for the expense of disinfection, but neglect to comply with the ordinance entails a penalty.

Legal Responsibility of Editor for Charlatan Ads.—The Breslau courts have recently inflicted a severe penalty on the advertisement editor of the *Breslauer Generalanzeiger*, a daily paper. He published several ads of a quack named Malisius, who offered to treat all abdominal and sexual affections without interfering with the patient's occupation, and without diagnosis, promising a rapid cure. The court assumed that the editor must have known the fallacy of such promises, and fined him $750. An appeal to a higher court was refused.

Decreasing Numbers of Blind Persons in Prussia.—The proportion of the blind to 100,000 inhabitants has fallen from 92.09 in 1871 to 61.95 in 1900. Out of a total number 4,932 were *blind from early* childhood, 15,183 became blind later, and the history was not known of 1,181 others. Nearly 5,000 are engaged in some occupation, including 1,275 employed on farms or in gardens and 1,263 in wood-working. The number of deaf mutes has slightly increased, although the proportion to populace is a trifle less. More than half are self-supporting, 6,281 in farming and 5,387 in the clothing and cleaning industries. The number of blind mutes has diminished from a total of 288 to 215.

The Common Communion Cup.—The president of the German imperial board of health has recently officially requested the secretary of the interior department to suggest to clergymen that they turn the *communion cup a little* as they pass from one person to the next, thus bringing a fresh place on the rim to the next person communing. He states *that* this is the general custom in Berlin, supplemented *sometimes* by wiping the rim with a napkin from time to time. He begs *that* the secretary will use his influence to have this simple but perfectly adequate precautionary measure generally adopted. One of the Berlin clergymen in whose *church the individual* cup has been introduced gives the history of the movement in favor of the individual cup in a communication *quoted* at length in the *Allg. med. Ct.-Ztg.* for March 19, 1904. He cites extensively from American literature.

Official Warnings from the Carlsruhe Board of Health.—The local board of health at Carlsruhe, Germany, has issued a warning, published in the daily press, against a certain plaster advertised to cure rheumatism, etc. The warning states that the plaster contains lead oxid and hence should be dispensed only in drug stores. The warning further cautions against the "Interstate Department of Health in Chicago," which is sending out circulars claiming to cure all the diseases hitherto incurable or only cured with difficulty. Treatment is by letter and medicine is sent on payment of the fee of $6 to $12. A few months ago the board of health issued a similar warning against the oxygen institute, Novavita, of Berlin. The proprietor of the institute sent an insulting letter in reply to the president of the board of health, and the latter at once instituted suit against him on the ground of defamation in his public capacity. The court decided for the plaintiff, fining the proprietor $7.50 and costs.

The Medical Insurance Company in Belgium.—About three years ago a certain number of physicians in Belgium decided to found an accident insurance company. The aim was to *pocket* the profits of such an enterprise instead of serving merely as the packhorse contract doctors while the profits were being poured into the laps of outsiders. La Médicale, as the new corporation was called, has succeeded beyond all anticipations. It has now nearly $25,000 annual income from premiums, an unparalleled growth in three years for such an undertaking in Belgium. A 5 per cent. dividend may be declared this year, although the medical officers of the society are remunerated much more justly than in ordinary insurance companies. The success of the enterprise is due in large part to Dr. L. Merveille of Chênée, editor of the *Gazette Médicale Belge*, now in its sixteenth year. He with the other nine directors of the society have demonstrated that it is possible to conduct an insurance company on a paying basis without necessarily grinding down its medical officers to starvation remuneration.

Positions for German Physicians in Foreign Lands.—An office was established at Hamburg a few years ago in connection with the local medical society to supply information in regard to medical positions on ships, and in the German colonies and elsewhere. The government has recently formally notified all the consuls and vice consuls and urged their coöperation. The aim is to obtain information of good openings and also to prevent their being usurped by unworthy or incapable incumbents. Question blanks were sent to the consuls to be filled out in case an opening offers and mailed to the Hamburg office. The questions ask the population of the place where a physician is desired; how many Germans or others are there in the place who would be liable to give the newcomer practice; what special qualifications are desirable; familiarity with what languages; what examination will have to be taken; if so, in what language; what hospitals are there and their capacity; would a German physician be able to perform operations in them; how many physicians are there in the place and vicinity; how many German physicians and their names; what is the climate; what epidemic diseases prevail and how is the place best reached, and what are the traveling expenses? How much capital is required for the first settling down, and for support during the first two years? What parties desire the presence of a German physician? Names and addresses of these persons and corporations? Are any inducements offered for a physician to locate there? Is a settled income guaranteed?

The Trance Dancer.—Medical circles in Germany are much interested at present in a certain Mme. Magdeleine G., a Russian, who gives a most artistic dancing performance in a hypnotic sleep. The performance is a musicale, but after being hypnotized by her manager, Magnin of Paris, the sound of the music impels her to dance, while she falls into a cataleptic condition the moment the music ceases. Our current German exchanges contain a number of articles on the subject. Fürer writes to the *Deutsche medicinische Wochft.* that the entertainment seems like a revival of the barbarous practice of exhibiting insane patients to the gaping public. Grünwald in a letter to the *Münchener med. Wochft.* takes much the same stand. He expresses the hope that the Munich Medical Society, which is the first scientific society before which the trance dancer has appeared, will insist on the pathologic character of the performance and *protest against its being permitted,* as a public entertainment. Loewenfeld contributes an article showing the features which stamp the performance as genuine, citing in detail the facts which speak against simulation of the hypnotic condition, or rather of the catalepsy from indirect suggestion. Schlagintweit, on the other hand, is convinced that the hypnotic setting is merely an advertising trick. This difference of opinion and the various discussions have been duly exploited in the lay press, and the *Schlaftänzerin* is the sensation of the day in Munich. The laws in Germany forbid exhibitions of hypnotism for profit, but her manager, Magnin, has succeeded in evading the law to date by some legal quibble. He is a professional magnetic healer and has exhibited the trance dancer only in a few private circles hitherto, mostly in artists' studios at Paris.

LONDON LETTER.

Dr. Jameson.

Dr. Jameson, the leader of the famous raid into the Transvaal, once more, by a turn of the wheel of fortune, occupies a commanding position. He has been appointed prime minister of Cape Colony. The career of this extraordinary man can be compared only with that of the heroes of romance. In turn he has been a successful colonial surgeon, the conqueror of a savage country, a colonial administrator, the leader of a troop of raiders, a felon condemned to death by the Boers, sentenced to imprisonment by his own countrymen, a vigorous parliamentarian, and now at last a prime minister. His disposition is particularly amiable, and not even his opponents deny his honesty. The fact that he has survived the hideous blunder of the raid speaks volumes. Like many other colonists who have made their mark, he is a Scot.

Chicken-pox Mistaken for Smallpox.

A serious outbreak of smallpox is reported in a Yorkshire town. February 10, 9 cases had occurred among young women employed in clothing establishments in Hebdenbridge. After three weeks the disease was thought to have been stamped out, but a number of cases then arose simultaneously, principally in school children. They were supposed to have been infected by one family in whom the disease lingered unknown. Of 45 patients sent to hospital 35 were unvaccinated. Some unnecessary delay in the removal of the patients occurred in consequence of the parents hoping that the disease was chicken-pox. Indeed, some attempted to pass the disease off as chicken-pox because of the supposed slur on their cleanliness. An outbreak of smallpox has occurred in the east end of London. There are 129 cases in hospital and in fifteen days 42 cases have been removed to hospital. Most of the cases have occurred in common lodging houses. The London County Council is on the alert to check the disease and has re-enacted the order, made during the last epidemic, making chicken-pox a notifiable disease so that cases of smallpox which may be mistaken for chicken-pox shall not escape the attention of the health authorities. The council has also appointed two experts as consultants, whose opinion any physician can obtain free of charge in a doubtful case of smallpox.

Plague in Johannesburg.

The latest returns show four fresh cases and one death, all in colored persons. A particularly sad feature is that among the five deaths of Europeans which have occurred since the beginning of the outbreak are those of Dr. Marais, who contracted the disease in the discharge of his duties, and of his wife and daughter, and of Dr. Macneil, who attended them. The sanitary authorities have dealt promptly with the outbreak. A board has been appointed to take charge of all the arrangements. At a special meeting of the town council $25,000 was voted as the initial expenditure. The whole town, especially the native quarters, is subjected to the strictest sanitary supervision. The coolie location, where the outbreak was discovered, will be burned to the ground as soon as the inmates can be removed. Meanwhile a cordon has been drawn round it and all ingress and egress prevented.

Mediterranean Fever.

The annual report of the health of the army on the whole is satisfactory, but Mediterranean fever shows a considerable increase. In forces amounting to 18,470 there occurred 315 cases, of which 238 cases were contracted at Malta.

Medical Graduates' College and Polyclinic.

The fifth annual meeting of the Medical Graduates' College and Polyclinic has been held. The report is most satisfactory and shows that a successful effort has been made to overcome the serious financial difficulties of the institution. A great accession of members has recently taken place and the total now reaches 927. Four sessions of practical classes, each of six weeks' duration, and a vacation of three weeks were held. Three hundred and fourteen clinical investigations were carried out in the laboratory and this department is receiving steadily increasing support. A course of 186 lectures by various men of eminence has been established and is open to members without extra fee.

A Revaccination Bill.

A revaccinantion bill, promoted by the Imperial Vaccination League, has been introduced into the house of commons by Sir John Batty Tuke, M.D. It provides for the revaccination of all children between the ages of 12 and 13 except those who obtain certificates of exemption in the way provided by the act of 1898 or those who may be exempted on medical grounds. The bill is backed by all the medical members of parliament and by other prominent politicians. Among the reasons given for the passing of the bill are the following: By the age of 12 the protection of primary vaccination is greatly diminished. Protection against smallpox by revaccination would be much cheaper than by providing costly hospitals and attempting to deal with epidemics by isolation. The provision of smallpox hospitals in London has recently cost $4,500,000 and the current expenditure is enormous.

Correspondence.

That "Neurasthenia" Foolishness.

Toledo, O., March 30, 1904.

To the Editor:—Your editorial of March 26 under the title "The Tyranny of Words in Medicine," wherein you refer to the unscience of the word neurasthenia as at present used in medicine, is in harmony with an extreme tiredness which has grown on me from the use of that word. The word started high in the medical profession and so was entitled to respectful consideration, but I believe that it long since had its full mete of attention, and I believe too that now both the physician and the sick man are better off without it.

I feel relieved and grateful to any one who gives even a plausible cause, like "eye strain," for the conglomeration of nervous symptoms and their functional manifestation which are now bunched together under that alleged nosologic entity. Within my time this varying jumble of symptoms has been said to be "uric acid diathesis," chronic malaria, and "autointoxication," and have been indexed under these different heads. For a time each of these substitutions of one unknown quantity for another has satisfied the medical mind, or at least has furnished a working hypothesis for the treatment of the sick. But no one ever succeeded in curing a patient by treating the symptoms, not any more than a child can be cured by treating the train of nervous symptoms which are dependent on an irritating prepuce. Spectacles would do such a child no good even though the eyes had become secondarily affected, and it is equally as silly to try to cure a similar complex of symptoms in one who is suffering from defective vision without giving him appropriate lenses.

A diagnosis of neurasthenia is on a level with a diagnosis of "neuralgia," and a diagnosis of "cutting teeth." I am not an oculist, but I think that articular rheumatism is a very common affliction of astigmatic school children. I think, too, that such children have better health during vacation, when they, presumably, use their eyes less.

I do not make any money by sending patients to oculists, but in obscure nervous troubles, or in unaccountable functional derangements of any kind I have learned, or possibly it has become a hobby of mine, to have the eyes examined before prescribing for them. Of course, I do not intend to say that I do not look for other exciting causes for the troubles, nor that I always find the real cause; nor that when the oculist says the patient needs lenses that the symptoms always rapidly disappear. What I am trying to say is that I do not make a diagnosis of neurasthenia. I would rather any time say outright that I do not know. To diagnose neurasthenia is to beg the question, and what is worse and still more unscientific, is to say that neurasthenia is the cause of some local trouble, like "asthenopia," for instance.

J. L. Tracy.

The Common House Fly as a Carrier of Typhoid.

Chicago, March 29, 1904.

To the Editor:—In The Journal, March 10, 1903, I published the report of certain investigations carried on in the Memorial Institue for Infectious Diseases, which apparently showed that the bacillus of typhoid fever could be found on the legs of flies which had visited vaults containing typhoid discharges. The organisms which were isolated, five in number, corresponded morphologically and culturally with the bacillus of Eberth and also were agglutinated by the serum of a rabbit immunized against the latter. The weak link in the chain of evidence, however, was the fact that agglutination could not be obtained in dilutions higher than 1-200. It is true that two control organisms, isolated from the blood of typhoid patients, also failed to agglutinate in higher dilutions, but the opinion generally held now, that it is only sera of high potency which will serve to differentiate the typhoid bacillus from closely allied organisms, renders this control inadequate. At that time no stronger serum was available and as it was desirable, for many reasons, to publish the report as soon as possible, the additional experiments needed to establish the identity of the bacillus isolated from flies were necessarily postponed. Later in the spring the serum from an immunized goat was obtained with the following result: (The organisms are named as in the original report.)

Control	1-7,500 + 1-10,000 incomplete.
A 1	1-7,500 + 1-10,000 incomplete.
A 2	1-7,500 + 1-10,000 incomplete.
A 3	1-5,000 + 1- 7,500 incomplete.
P 1	1-5,000 + 1- 7,500 incomplete.
P 2	1-7,500 + 1-10,000 incomplete.

These tests were all made macroscopically, in test tubes.

The immunization of guinea-pigs with the different bacilli was interrupted by an absence of several months, and when it was resumed in the fall the two tubes containing the cultures of A 3 and P 2 had become contaminated during frequent transplantations and the work had to be confined to the remaining three.

At first Pfeiffer's method was followed; one-half a platinum loop of an agar culture killed by heat was injected subcutaneously; five days after, the same dose was injected into the peritoneum and then, at intervals of five days each, two half-loopfuls of living bacilli were injected into the peritoneum. The animals were bled in twelve to fifteen days after the last injection, but the sera of all four (the fourth being the control, injected with typhoid bacilli), proved feebly agglutinative, the action ceasing after the dilution of 1-150 had been reached. One c.c. of a twenty-four-hour bouillon culture was then given by intraperitoneal injection, and after a week 2 c.c. and the animals bled a second time. The sera now agglutinated in dilutions of 1-800 or more as follows:

Control serum	+ Typh. b.	1-1,000 + 1-1,500
Control serum	+ A 1	1-1,000 + 1-1,500
Control serum	+ A 2	1-1,000 + 1-1,500
Control serum	+ P 1	1-1,000 + 1-1,500
Serum A 1	+ Typh. b.	1- 800 + 1-1,000
Serum A 1	+ A 1	1-1,000 + 1-1,500
Serum A 1	+ A 2	1- 800 + 1-1,000
Serum A 1	+ P 1	1-1,000 + 1-1,500
Serum A 2	+ Typh. b.	1- 800 + 1-1,000
Serum A 2	+ A 1	1-1,000 + 1-1,500
Serum A 2	+ A 2	1-2,000 + 1-2,500
Serum A 2	+ A 2	1-1,000 + 1-1,500
Serum P 1	+ Typh. b.	1-2,000 + 1-2,500
Serum P 1	+ A 1	1-1,000 + 1-1,500
Serum P 1	+ A 2	1-1,000 + 1-1,500
Serum P 1	+ P 1	1-1,500 + 1-2,000

The variations found in these agglutinative tests are no greater than may be observed if different strains of typhoid bacilli are tested with the same serum. For instance, a certain typhoid culture which had been in use for some months in the laboratory was agglutinated by the serum of the control animal only in a dilution of 1-800, but the serum of animal P 1 agglutinated it in a dilution of 1-1,200.

So far, therefore, as our present understanding of the question goes, the three organisms (if not the five) isolated from the legs and bodies of the flies which were caught in and around the privy vaults and yards of houses containing typhoid patients, have been proved to be true typhoid bacilli.

Alice Hamilton.

The Vienna Anglo-American Medical Association.

Vienna, March 29, 1904.

To the Editor:—The Anglo-American Medical Association of Vienna was organized Feb. 6, 1904, with 56 members, and now has a membership of 80. The object of the organization, as stated in the constitution, is to promote social intercourse among the English-speaking medical men studying in Vienna, to advance the scientific interests of its members and to aid in quickly acquainting the newcomer with the medical and scientific courses given in Vienna.

The association meets every other Saturday evening for supper, after which there is a scientific and social meeting, the former consisting of an address on some medical topic by one of the professors or teachers connected with the university. Professors Ortner and Finger and Private-Docent Sternberg have delivered very interesting and instructive addresses.

Inquiries addressed to the secretary, Dr. F. G. Harris, 8 Schlösselgasse No. 2, Vienna, will be cheerfully answered.

F. G. Harris.

[The officers of this organization were mentioned in The Journal, March 19, 1904, p. 779.—Ed.]

Anesthol.

New York City, March 29, 1904.

To the Editor:—We beg to state that the use of the name of Dr. Willy Meyer of New York on the label of the new anesthetic anesthol was introduced without his knowledge, though in entire good faith on our part.

At his request the label has been changed and, in order to protect the medical profession against unreliable imitations, it will henceforth bear the name of Dr. Weidig, the originator of the new compound.

Chas. Cooper & Co.,
194 Worth St., New York, Sole Manufacturers.
Lehn & Fink, 120 William St., New York,
Sole Selling Agents.

Queries and Minor Notes.

Anonymous Communications will not be noticed Queries for this column must be accompanied by the writer's name and address, but the request of the writer not to publish his name will be faithfully observed.

THE DOCTOR'S THREE FACES.

Brooklyn, N. Y., March 31, 1904.

To the Editor:—Can you give me the verse in which occurs the reference to the three faces of the doctor; one when it looks like an angel's, one like a god's and the other like the devil's? R. T.

Answer.—Our correspondent probably refers to the epigram written by Enricus Cordus, a physician of the early part of the Sixteenth century. It was in Latin as follows:

> Tres medicus facies habet; unam quando rogatur.
> Angelicum; mox est, cum juvet, ipse Deus.
> Post ubi curato, poscit sua prœmia, morbo
> Horridus apparet; terribilisque Satan.

This is freely translated as follows:

> Three faces has the doctor; when first sought,
> An angel's—and a God's, the cure half wrought;
> But when the cure complete he seeks his fee
> The devil looks less terrible than he.

WHERE ARE WE AT?

A new avenue of usefulness in life has opened before the man who fails to make a success in some other way. We can not question the matter, since it comes with the authority and weight of New York and Boston literary culture behind it. In the *Boston Medical and Surgical Journal*, March 31, in an article on "The Partial Passing of Neurasthenia," by Dr. C. L. Dana, New York, occurs this sentence: "They (cases of dementia precox) are seen in college men and young professional men who break down suddenly after starting out brilliantly and are never heard of, becoming perhaps, breadwinners and fathers and mothers of families, but never amounting to anything, and always working at a disadvantage."

REVOKING OF LICENSES.

Dr. S. M. Mason, Clarksburg, W. Va., asks for information regarding the revoking of licenses by the medical boards of the different states for such causes as malpractice, immoral conduct or criminal practices.

Marriages.

Eugene H. Pool, M.D., to Miss Esther Hoppin of New York City.

J. T. Bradbury, M.D., to Miss Alerta Kissick, both of Cody, Wyo., April 4.

Kellogg Speed, M.D., to Miss Adelaide Brown, both of Chicago, April 12.

John C. McEnery, M.D., Jacksonville, Ill., to Miss Mary Milligan of Chicago.

Paul Louis Reiss, M.D., to Miss Louise Castanedo, both of New Orleans, April 6.

Otto Baumrucker, M.D., to Otilia Olga Zelezny, M.D., both of Chicago, April 7.

Clarence Haecker, M.D., Marshalltown, Iowa, to Miss Anna May Zelezny of Chicago April 7.

Walter E. M. Ranchous, M.D., to Miss Bertha May Buchman, both of Columbus, Ohio, April 7.

John Nuttall, M.D., Newcastle, Ky., to Miss Anna Brinker of Wilmette, Ill., at Hammond, Ind., April 5.

Jacob Webber, M.D., Louisville, Ky., to Miss Ethelyn Mack of Kansas City, Mo., at Bardstown, Ky., March 28.

William Calvin Kennerdell Berlin, M.D., Cleveland, Ohio, to Miss Bessie Lee Koen of Mannington, W. Va., April 6.

Deaths:

Charles Gilbert Chaddock, M.D. University of Michigan, Ann Arbor, 1885; of St. Louis; a member of the American Medical Association, the American Medico-Psychological Association, and St. Louis Medical Society; fellow of the American Academy of Medicine; professor of nervous and mental diseases Marion-Sims-Beaumont Medical College, surgeon of the Seventh Michigan Volunteer Infantry during the Civil War, died at his winter home in Berkeley, Cal., April 1, aged 76.

Crawford E. Fritts, M.D. College of Physicians and Surgeons, New York, a member of the American Medical Association, New York State Medical Association, New York State Medical Society, visiting surgeon of Hudson City Hospital, consulting physician to the Hospital of the State House of Refuge for Women, died April 6 at his home in Hudson, N. Y., from neuralgia of the heart, aged 53.

John Higgins, M.D. Indiana Medical College, La Porte, Ind., 1846, during the Civil War surgeon of the Twelfth Illinois Volunteer Cavalry, and surgeon-in-charge of the General Hospital, Camp Stoneman, near Washington, D. C., died at his home in Crown Point, Ind., where he had practiced for 40 years, from apoplexy, April 6, aged 82.

Dennis Denman Loop, M.D. University of Buffalo, N. Y., 1864, of North East, Pa., sometime president of the Erie County Medical Society and of the Medical Society of Northwestern New York, and a member of the Medical Society of the State of Pennsylvania, died, April 2, from apoplexy, after an invalidism of six years, aged 76.

Judson Wade Garnett, M.D. College of Physicians and Surgeons, Baltimore, 1871, a member of the American Medical Association and North Texas Medical Association, and local surgeon for the M., K. & W. and St. L. & S. W. railways, died recently at his home in Greenville, Texas, aged 56.

Louis A. Crist, M.D. University of Pennsylvania, Philadelphia, 1896, a member of the Medical Society of the State of Pennsylvania and the Lackawanna County Medical Society, died at his home in Scranton, Pa., April 3, from pneumonia, after an illness of ten days, aged 33.

Douglas J. Cameron, M.D. University of Edinburgh, Scotland, of New York City, died in Phoenix, Ariz., March 14, aged 31. He practiced chiefly among the east side poor, and was commonly known as the "Good Samaritan."

Josiah C. Campbell, M.D. Howard University, Washington, D. C., 1877, formerly a member of the Vermont legislature, died at his home in Attleboro, Mass., March 24, from pneumonia, after a short illness, aged 60.

George G. Griffin, M.D. Jefferson Medical College, Philadelphia, 1859, a surgeon in the Confederate service during the Civil War, died at his home in Covington, Ga., April 4, after an illness of two weeks, aged 69.

Floyd F. Hollister, M.D. Syracuse University (N. Y.) College of Medicine, 1900, of Weedsport, N. Y., died, March 28, at the home of his father in Mexico, N. Y., from influenza after an illness of one week.

John Albert Gray, M.D. University of Michigan, Ann Arbor, 1902, of Scottsville, Mich., died in Dallas, Texas, where he had gone in hope of regaining health, April 3, from pulmonary tuberculosis, aged 28.

Francis Rush Skinner, M.D. Castleton (Vt.) Medical College, 1854, the earliest resident physician of Eau Claire, Wis., who retired from practice in 1884, died at his home in Eau Claire, March 28, aged 72.

Charles M. Garrison, M.D. College of Physicians and Surgeons, New York, 1884, of Salt Lake City, state medical inspector, died in Salt Lake City from cerebral meningitis, March 26, aged 45.

Peleg Wadsworth, M.D. National Medical College, Washington, D.C., 1863, for many years city physician of Malden, Mass., died suddenly at his home in that place, April 2, from heart disease, aged 69.

Elisha Crowell, M.D. University of Pennsylvania, Philadelphia, 1851, who had practiced in West Philadelphia for 53 years, died at the home of his son in Philadelphia, April 5, aged 75.

Robert A. Warnock, M.D. University of Nashville, 1857, a surgeon in the Confederate service during the Civil War, died at his home in Inverness, Fla., from paralysis, January 30, aged 72.

John L. Gleason, M.D. Harvard University Medical School, Boston, 1866, of Hannibal, Mo., died at a sanitarium in St. Louis, March 30, from disease of the stomach of long standing, aged 66.

J. Carroll Monmonier, M.D. University of Maryland, Baltimore, 1866, died at his home near Franklin, Baltimore County, April 6, aged 57. He was a member of the Maryland legislature in 1892.

John Philip Young, M.D. Medical Department of the University of Iowa, Keokuk, died suddenly at his home in Oakdale, Cal., March 14, from pulmonary hemorrhage, aged 61.

Atticus Grattan Whitehead, M.D., twice president of the Medical Association of Georgia, died at his home in Waynesboro, Ga., March 24, after a long illness, aged 63.

Addison W. Taylor, M.D. University of Pennsylvania, Philadelphia, 1871, died at his home in Beverly, N. J., April 3, from paralysis, after an illness of five weeks, aged 58.

Edward A. Walter, M.D. the University and Bellevue Hospital Medical College, New York, 1899, died at his home in New York City, February 27, from pneumonia.

Charles R. Sexton, M.D. Tulane University, New Orleans, 1875, died from pneumonia at his home in Birmingham, Ala., April 2, after an illness of three weeks, aged 58.

William H. Heller, M.D. Rush Medical College, Chicago, 1855, died recently at his home in Abingdon, Ill, aged 82. He was the oldest practitioner in Knox County.

Jacob B. Engle, M.D. Indiana, 1897, of Lagrange, Ind., who was recently committed to Longcliff Asylum, Logansport, died in that institution recently, aged 66.

Henry G. Souder, M.D. Hahnemann Medical College, Philadelphia, 1875, died suddenly at his home in Woodstown, N. J., April 1, from apoplexy, aged 58.

T. T. Ferree, M.D. College of Physicians and Surgeons, Baltimore, died at his home in Asheboro, N. C., March 20, after a lingering illness, aged 52.

George H. Hammond, M.D. New York University, 1872, died at his home in Freeport, Long Island, N. Y., March 28, from pneumonia, aged 57.

William A. Eutravella McKee, M.D. University of Maryland, Baltimore, 1883, died at his home in New York City, March 28, from pneumonia.

A. Smith Mays, M.D. Eclectic Medical College of Pennsylvania, Philadelphia, 1875, died at Wharton, Ohio, March 29, from dropsy.

Jeremiah S. Hetrick, M.D. Washington University School of Medicine, Baltimore, 1873, died recently at his home in New Freedom, Pa.

Edson S. Munger, M.D. University of Vermont, Burlington, 1882, died at his home in Windsor, Vt., from pneumonia, March 29, aged 47.

Walters Burrows, M.D. College of Physicians and Surgeons, New York, retired, died at his home in Elizabeth, N. J., April 2, aged 75.

John D. Young, M.D. Penn Medical University, Philadelphia, 1864, died suddenly at his home in Winthrop, Mass., March 25, aged 62.

John S. Powell, M.D. Jefferson Medical College, Philadelphia, 1853, of Occoquan, Va., died at Alexandria, Va., March 12, aged 74.

James D. Archer, M.D. Starling Medical College, Columbus, Ohio, 1884, died at his home in Holgate, Ohio, February 26, aged 45.

Andrew J. Cunningham, M.D. Columbus (Ohio) Medical College, 1888, died at his home in Jasper, Mich., March 4, aged 54.

Robert Mackinlay, M.D. University of Edinburgh, Scotland, 1882, died at his home in Santa Barbara, Cal., February 28, aged 43.

William H. Latham, M.D., for 52 years a teacher of the deaf and dumb, died at his home in Indianapolis, April 5, aged 89.

H. F. Myers, M.D. Kentucky School of Medicine, Louisville, 1883, died at his home in Rosepine, La., March 7, aged 60.

Edward J. Fowlkes, M.D. Medical College of Virginia, Richmond, 1856, died at his home in Winterpock, Va., March 9.

Luther D. Scherer, M.D. Chicago Medical College, 1875, died at his home in Los Angeles, Cal., March 2, aged 57.

Vastine C. Lunn, M.D. Rush Medical College, Chicago, 1896, died at his home in La Grange, Texas, March 5.

Felix Fettig, M.D. Detroit Medical College, 1877, died at his home in Detroit, Mich., March 11, aged 68.

Alfred B. Kibbe, M.D. University of Buffalo, 1880, died at his home in Seattle, Wash., March 27.

C. H. Roberts, M.D., died suddenly from heart disease at his home in Wolfe City, Texas, March 26.

James H. Bryant, M.D. Indiana, 1897, died at his home in Gentryville, Ind., March 22, aged 82.

Marion Lewis Mayo, M.D., late of Huntington, W. Va., died at Richmond, Va., April 6, aged 82.

William Mulherne, M.D., died of heart disease at the home of his father in Philadelphia, April 9.

Philip D. Carper, M.D. Iowa State University, died at Los Angeles, Cal., March 4, aged 41.

William D. Hill, M.D. Indiana, 1900, died at his home in Martinsville, Ind., March 22.

Linus Squires, M.D. Iowa, 1880, died recently at his home in Mitchell, Iowa, aged 72.

Joseph B. Frazier, M.D., died at his home in Baltimore, March 5.

Book Notice.

THE COMMONER DISEASES OF THE EYE, How to Detect and How to Treat Them. For Students of Medicine. With 250 Illustrations, Many of Them Original, of Which 7 are Colored Plates. By Casey A. Wood, C.M., M.D., D.C.L., Professor of Clinical Ophthalmology in the University of Illinois, and Thomas A. Woodruff, M.D, C.M., L.R.C.P. Lond., Professor of Ophthalmology in the Post Graduate Medical School, Chicago. Cloth. Pp. 499. Price, $1.75. Chicago: G. P. Engelhard & Co. 1904.

A better title for this book would have been "Ophthalmology for the General Practitioner," for this would have expressed exactly what it is. The authors have done more than to simply discuss the common diseases of the eye; they have given its anatomy and physiology, especially the latter, and the methods of examination, and in fact have treated the subject from the broad standpoint of the needs of the physician. The first three chapters are devoted to the examination of the eye and to errors of refraction and their correction. Then follow chapters on the common diseases of the eyelids, the conjunctiva, the cornea, the iris, the crystalline lens, etc. The chapter on "How to Preserve the Eyesight" is especially worthy of note. In it are considered the questions, at what age a child should be sent to school, the arrangement of school rooms, the color of window shades, arrangements of seats, blackboards, etc., from the standpoint of the pupil's eyesight. "Ophthalmology in General Medicine and Surgery," "The Ocular Complications of Certain Systemic Diseases," Headache, etc., from Eyestrain," and "Remedies in Ophthalmic Practice," are the subjects of other chapters, and indicate the practical scope of the work from the standpoint of the general practitioner. Every subject is discussed fully, yet while the book contains nearly 500 pages, it is free from padding It is scientific, but the matter is presented in such simple language, and in such an elementary manner, that even a layman could understand it The book is well illustrated, and an unusually complete index adds to its value On the whole, for the general practitioner, it is one of the most satisfactory books on the eye of which we know

State Boards of Registration.

COMING EXAMINATIONS

Illinois State Board of Health Chicago, April 25 27, and East St Louis, May 4 6 Secretary, J A Egan, Springfield

Board of Medical Examiners for the State of Texas, Austin April 21 23 Secretary, M M Smith, M D Austin

State Board of Medical Examiners of Iowa, April 14 15 at Keokuk April 20 21 at Des Moines, May 2 3 at Sioux City Secretary, J F Kennedy, M D, Des Moines

Nebraska State Board of Health, Lincoln, April 21 23 Secretary, Geo H Brash, M D, Beatrice

Nevada State Board of Medical Examiners Carson City, May 2 Secretary S L Lee M D, Carson City

Louisiana State Board of Medical Examiners, Tulane Medical College New Orleans, May 6 7 Secretary, F A Larue, M D New Orleans

Mississippi State Board of Health, Jackson May 10 11 Secretary, J F Hunter, M D, Jackson

State Board of Medical Examiners of South Carolina, State House, Columbia, May 17 Secretary, S C Baker, Sumter

University of the State of New York, State Medical, Homeopathic and Eclectic Boards, New York, Albany, Buffalo and Syracuse, May 17 20

Board of Medical Examiners of the State of North Carolina, Raleigh, May 18 Secretary, G W Pressly, Charlotte

The Ohio State Board of Medical Examiners will hold examinations at Cincinnati, Cleveland and Columbus this year, instead of at Columbus alone, as in the past This will be a great accommodation to the 1904 graduating classes of Cincinnati, which are the first classes to be affected by the new law The examinations will be held June 13, 14 and 15

District of Columbia Report—Dr W C Woodward, secretary of the Board of Medical Supervisors of the District of Columbia, reports that at the examination held at Washington, D C, Jan 14 18, 1904, 80 questions were asked on 17 subjects, and a percentage of 75 was required Of the 11 who were examined, 7 passed, 3 failed and 1 withdrew before the end of the examination The latter graduated from Columbian University in 1903

PASSED

College	Year Grad	Per Cent
Columbian University	(1903) 84 34 75 87, 83 84,	80 71
Georgetown University	(1898) 75 71, (1903)	85 90
Johns Hopkins University	(1902)	90 18

FAILED

College	Year Grad	Per Cent
Georgetown University	(1900)	68 65
Howard University	(1903)	66 65
Michigan University	(1879)	67 68

Oregon Report—Dr Byron L Miller, secretary of the Board of Medical Examiners of Oregon, reports that at the written examination held at Portland, Jan 5 7, 1904, 100 questions were asked on 15 subjects, and a percentage of 75 was required Of the 21 who were examined 18 passed and 3 failed One of the latter was not a graduate

PASSED

College	Year Grad	Per Cent
Denver College of Medicine	(1891)	78 8
University Med Coll Kansas City	(1897) 76 8, (1902)	78 8
Cooper Med Coll, San Francisco	(1903) 80 6,	83 3
College of P and S, Keokuk, Iowa	(1890)	81 0
Harvard University, Boston	(1891)	80 9
University of Michigan	(1877) 79 3 (1903)	83 7
Omaha Medical College	(1897)	81 8
Medical School of Brunswick Maine	(1901)	80 3
University of Minesota	(1901)	80 3
McGill University Montreal	(1874)	77 1
Syracuse New York Medical College	(1884)	82 2
New York University	(1889)	83 1
Marion Sims Med Coll St Louis	(1900)	80 4
Colorado School of Medicine	(1902)	82 5
Johns Hopkins University	(1902)	88 0

FAILED

College	Year Grad	Per Cent
College of Physicians and Surgeons Iowa	(1882)	73 8
College of Physicians and Surgeons California	(1903)	73 8

Association News.

Atlantic City Hotels.

For a list of the hotels at Atlantic City and their prices, see The Journal, April 2, page 912

Professor Ramsay of Scotland To Be a Guest of the Section on Ophthalmology at Atlantic City.

Dr A E Bulson, Jr, Ft Wayne, Ind, secretary of the Section on Ophthalmology, sends us the interesting news that Dr A Maitland Ramsay of Glasgow, Scotland, has accepted an invitation from the officers of that section to be a guest of the section at Atlantic City He will deliver an address on "The Importance of General Therapeutics in the Treatment of Ocular Diseases"

The Public Service.

Army Changes.

Memorandum of changes of station and duties of medical officers, U S Army, week ending April 9, 1904.

urgeon, assignment to duty as assistant
son, surgeon, in charge of Medical Ex
xposition, is revoked, and he will pro-
Barracks, Mo, to St Louis and report
nan Philippine Exhibit Board, to supervise sanitary matters in Philippine Village and care of sick connected with Philippine Exhibit

De Witt, Wallace, asst surgeon, on completion of special duty at New Haven, Conn, will proceed to St Louis and report for duty as assistant to Major Richard W Johnson, surgeon, in charge of Medical Department Exhibit, for duty as his assistant

Hutton, Paul C, assist surgeon, granted five months leave on surgeon's certificate of disability Availed himself of this leave April 1

Van Poole, Gideon McD, asst surgeon granted thirty days' leave, to take effect about April 6, 1904

Many, Harry C contract surgeon, granted leave of absence for two months, to take effect about June 1

Slater, Ernest F, contract surgeon, granted leave of absence for twenty days, to take effect about April 10

Navy Changes

Changes in the medical corps U S Navy for the week ending April 9, 1904

Taylor, E C, asst surgeon, detached from the Naval Museum of Hygiene and Medical School Washington, D C, and ordered to the Naval Hospital Naval Station, San Juan, P R, sailing from New York about April 9

Campbell, F E asst surgeon, detached from Naval Museum of Hygiene and Medical School, Washington, D C, and ordered to the *Constellation*

Manchester, J D, asst surgeon ordered to the *Columbia*, April 11

Pease, T N, asst surgeon, ordered to the *Hartford*, April 14

Reeves, I S K, asst surgeon, ordered to the *Minneapolis*, April 14

Wentworth, A R, surgeon, granted leave of absence for one month from April 5

Bishop, L W asst surgeon, detached from treatment at the Naval Hospital, Mare Island, Cal, ordered home and granted sick leave for two months

Marine-Hospital Service

Official list of the changes of station and duties of commissioned and non commissioned officers of the Public Health and Marine Hospital Service, for the seven days ended April 7, 1904

Von Ezdorf R H, P A surgeon, detailed as recorder of board of examiners that met at Washington, D C, April 4 1904 for the examination of candidates for appointment as assistant surgeon

Foster M H P A surgeon bureau letter of March 19 granting leave of absence for ten days from March 30, amended so that said leave shall be effective April 29

Anderson, J F P A surgeon, relieved from duty as recorder of board of examiners that met at Washington, D C, April 4 1904 for the examination of candidates for appointment as assistant surgeon.

McClintic T B asst surgeon, relieved from duty in the Hygienic Laboratory Washington D C, and directed to proceed to Tampico, Mexico for duty in the office of the United States Consul

Glover, M W asst surgeon, to proceed to Vancouver, B C for special temporary duty

Warren, B S asst. surgeon, granted leave of absence for six days from April 10

Moncure J A, A A surgeon Department letter granting leave of absence for thirty days from April 1 1904, amended so that said leave shall be effective from April 10

BOARD CONVENED

Board convened at Stapleton, N Y April 4 1904 for the physical examination of officers of the Revenue Cutter Service Detail for the board P A Surgeon A C Smith chairman, Asst Surgeon T W Salmon recorder

Health Reports.

The following cases of smallpox, yellow fever, cholera and plague have been reported to the Surgeon General, Public Health and Marine-Hospital Service, during the period from April 1 to April 9, 1904:

SMALLPOX—UNITED STATES.

Florida: Jacksonville, March 26-April 2, 1 case.

Illinois: March 26-April 2, Chicago, 5 cases; Danville, 6 cases.

Indiana: South Bend, March 26-April 2, 1 case.

Kentucky: Covington, March 26-April 2, 2 cases.

Louisiana: New Orleans, March 26-April 2, 4 cases, 2 imported.

Maryland: Baltimore, March 26-April 2, 4 cases.

Massachusetts: Lowell, March 26-April 2, 1 case.

Michigan: at 75 localities, March 19-26, present.

Missouri: St. Louis, March 26-April 2, 15 cases.

New York: March 26-April 2, Buffalo, 3; Niagara Falls, 1 case.

Ohio: Cleveland, March 25-April 1, 6 cases, 2 deaths; Dayton, March 26-April 2, 5 cases.

Pennsylvania: Carbondale, March 24-31, 1 case; March 26-April 2, Erie, 2 cases; Philadelphia, 32 cases, 7 deaths; Pittsburg, 4 cases, 3 imported; Reading, March 28-April 4, 1 case.

South Carolina: Charleston, March 26-April 2, 2 cases; Greenville, March 19-26, 2 cases.

Tennessee: Nashville, March 26-April 2, 5 cases.

Virginia: Pocahontas, March 24-31, 6 cases, 2 deaths.

Wisconsin: Milwaukee, March 26-April 2, 3 cases.

SMALLPOX—FOREIGN.

Austria: Prague, March 6-12, 2 cases.

Belgium: Antwerp, March 12-19, 16 cases, 4 deaths.

Brazil: Rio de Janeiro, Feb. 28-March 6, 45 cases, 3 deaths.

Canada: Quebec, March 12-19, 1 case.

Colombia: Barranquilla, March 7-20, 3 deaths.

Formosa: Jan. 1-31, 9 cases.

France: Paris, March 12-19, 15 cases, 1 death.

Great Britain: March 12-19, Edinburgh, 8 cases, 1 death; Hull, 6 cases; Leith, 1 case; Manchester, 3 cases; Newcastle-on-Tyne, 7 cases; Nottingham, 13 cases; South Shields, 1 case; Glasgow, March 18-25, 46 cases, 4 deaths; Leeds, March 19-26, 2 cases; London, March 12-26, 84 cases; Sheffield, March 6-19, 3 cases.

India: Bombay, March 1-8, 19 deaths; Calcutta, Feb. 20-March 5, 7 deaths; Karachi, Feb. 28-March 6, 16 cases, 2 deaths.

Mexico: City of Mexico, March 13-20, 11 cases, 6 deaths; Vera Cruz, March 19-26, 1 case.

Netherlands: Amsterdam, March 19-26, 3 cases.

Russia: March 5-12, Moscow, 5 cases, 1 death; St. Petersburg, 10 cases, 1 death.

Straits Settlements: Singapore, Feb. 20-27, 1 death.

Turkey: Constantinople, March 13-20, 5 deaths.

YELLOW FEVER.

Brazil: Rio de Janeiro, Feb. 28-March 6, 9 cases.

Mexico: Merida, March 13-19, 1 case; Tehuantepec, March 19-26, 3 cases, 1 death.

CHOLERA.

India: Bombay, March 1-8, 1 death; Calcutta, Feb. 20-March 5, 77 deaths; Madras, Feb. 13 March 4, 7 deaths.

Turkey in Asia: Bassorah, Feb. 9-12, 6 cases, 4 deaths.

PLAGUE.

Africa: Port Elizabeth: Feb. 27-March 5, 8 cases, 4 deaths.

Australia: Brisbane, Feb. 6-20, 5 cases: Sydney, March 10, 1 case.

Brazil: Rio de Janeiro, Feb. 28-March 6, 1 case.

India: Bombay, March 1-8, 968 deaths; Calcutta, Feb. 20-March 5, 294 deaths; Karachi, Feb. 28-March 6, 106 cases, 90 deaths; Madras, Feb. 27-March 4, 1 death.

Peru: Lima, March 23-30, 23 cases 4 deaths.

Medical Organization.

Florida.

Citrus County Medical Society.—This society was organized at Inverness, April 4, on the standard plan, with the following officers: Dr. Joseph D. Bennett, Crystal River, president; Dr. James F. Miller, Inverness, vice-president; Dr. Henry O. Snow, Floral City, secretary-treasurer; Drs. R. A. Lowrey, Floral City, Walter E. Armstrong, Crystal River, and Taylor, Crystal River, censors, and Dr. Joseph D. Bennett, Crystal River, delegate to the state association.

Illinois.

Menard County Medical Society.—A society has been organized at Petersburg with the following officers: Dr. Joseph W. Newcomer, Petersburg, president; Dr. Stith T. Hurst, Greenview, vice-president, and Dr. Berton W. Hole, Tallula, secretary.

Louisiana.

Bossier Parish Medical Society.—This society was organized on the standard plan in Shreveport, March 24, with an initial membership of 7, by Dr. Norwood K. Vance, Shreveport, councilor for the Fourth District. Dr. John L. Scales, Alden Bridge, was elected president; Dr. David J. McAnn, Atkins, vice president, and Dr. Clifford H. Irion, Benton, secretary-treasurer.

Avoyelles Parish Medical Society.—Dr. Charles A. Gardiner, Bristol, councilor for the Seventh District, met the physicians of the parish at Bunkie, and assisted in the organization of a medical society on the standard plan, with a charter membership of 19, and the following officers: President, Dr. Cleophas J. Ducote, Cottonport; vice-president, Dr. William G. Branch, Bunkie; secretary, Dr. E. Stanley Matthews, Bunkie; treasurer, Dr. Emil Regard, Mansura, and chairman of committee on scientific work, Dr. David B. Davis, Bunkie.

Mississippi.

Good Work in Mississippi.—Dr. John F. Hunter, secretary of the State Board of Health, is receiving a number of very encouraging reports of the organization of county medical associations in affiliation with the state and national associations. He says that the establishment of these organizations indicates a larger attendance at the annual meeting of the Mississippi Medical Association, to be held in Jackson, April 20, than for many years. Within the past few days six county medical societies have been established and officers chosen for the next year. Closer bonds between members of the medical profession in Mississippi will be established by the launching of these county societies, and the work of the state association greatly facilitated.

Covington County Medical Society.—Physicians of the county met at Collins, March 23, and organized a society with the following officers: Dr. Alexander Fairley, Mount Olive, president; Dr. W. N. Blount, Collins, vice-president, and Dr. Harvey F. Garrison, Seminary, secretary and treasurer.

Newton County Medical Association.—At a special meeting held in Hickory, March 22, at which Dr. J. J. Haralson, Forest, represented the state association, the county association voted to accept the standard plan of reorganization, and chose its president, Dr. G. H. McNeill, Newton, as delegate to the state association.

Clarke-Wayne County Medical Society.—This society was organized at Quitman, March 28, with the following officers: Dr. William H. Boykin, State Line, president; Dr. William J. McNair, Quitman, vice-president, and Dr. J. M. Guthrie, Quitman, secretary and treasurer. Eleven physicians were present at the meeting.

Washington County Medical Society.—This society was organized in Greenville, March 16, with the aid of Dr. Edward H. Martin, Clarksdale, councilor for the First District, with about twenty-five charter members. Dr. Jefferson D. Smythe, Greenville, called the meeting to order, and was made temporary chairman, and Dr. Andrew G. Payne, Greenville, was made temporary secretary. After the adoption of the constitution and by-laws the following officers were elected: President, Dr. Elbert A. Cheek, Arcola; vice-president, Dr. Owen W. Stone, Greenville; Dr. M. O. Shivers, Greenville, secretary and treasurer; Dr. Jefferson D. Smythe, Greenville, delegate to the state association, and Drs. Emmett C. Smythe, Greenville, Owen W. Stone, Greenville, and A. S. Lee, Dudley, censors.

New Mexico.

Chaves County Medical Society.—On March 7 this society was organized at Roswell with 14 members, including all save two of the physicians in the county. The constitution and by-laws for county medical societies prepared by the committee on organization of the American Medical Association was adopted and the following officers were elected: President, Dr. William T. Joyner; vice-president, Dr. John W. Kinsinger; secretary, Dr. William W. Phillips; treasurer, Matthews W. Flournoy, and censors, Drs. Charles M. Mayes, Charles I. Beeson, and T. C. Blackwelden, all of Roswell. The society announces that it is ready to do its part in reorganizing the Territorial Medical Society.

Texas.

A Typical Letter from a Good Councilor.—The following letter to Dr. J. N. McCormack, from a councilor in Texas, is a sample of those that have been received from the councilors in many states:

Greenville, Texas, March 12, 1904.

Dear Dr. McCormack:—. . . I have organized societies in 20 of the 22 counties in my district, taking in Raines County with Hunt. Only two counties remain out, and I will visit both of these this week.

I find nothing in the way of this plan of organization, when it is understood and the work placed in the hands of earnest, enthusiastic men. It has been easy for me to show the profession in my district that it marks an epoch in the history of organized medicine in this country. They are especially pleased with the feature of it which brings membership in the American Medical Association home to the county societies, so that every man's character is passed on by his home people.

I have found no case of strife or individual differences that the parties have not heard me willingly, and which has not yielded readily after mutual explanations. I have given 50 days of my time to this work since I met you at San Antonio. Time after time I have seen physicians meet, discuss and agree to go to work under these plans of organization who had not spoken to each other for years. I have seen the good effect of breaking bread together this year as I have never seen it before.

I shall write to each county secretary in a few days to get a list of the new members since my last visit to them. We will have more than 600 members from my district before the next meeting of the state association. I have visited some of the counties two or three times, have written over 3,000 letters, and yet my expense account for railway fare and everything else has been less than $120. . . . Yours very truly,

C. E. Cantrill, M.D.,
Councilor No. 14, Northern District.

Wisconsin.

Trempeleau and Jackson County Medical Association.—Dr. Wilbur T. Sarles, Sparta, councilor of the Seventh District, recently met the physicians of these two adjoining counties at Galesville, and organized an inter-county association on the standard plan, with the following officers: Dr. George N. Hidershide, Arcadia, president; Dr. William E. Parker, Whitehall, vice-president; Dr. Henri A. Jegi, Galesville, secretary and treasurer, and Drs. George H. Lawrence, Galesville, W. E. McFarland, Trempeleau, and Judson A. Palmer, Arcadia, censors.

Society Proceedings.

COMING MEETINGS.

Medical Association of the State of Alabama, Mobile, April 19.
Medical Society of the State of California, Paso Robles, April 19-21.
Florida Medical Association, Live Oak, April 20.
Medical Association of Georgia, Macon, April 20.
Mississippi State Medical Association, Jackson, April 20.
Texas State Medical Association, Austin, April 26.
Medical and Chirurgical Faculty of Maryland, Baltimore, April 26-28.
Arizona Medical Association, Tucson, April 27-28.
Arkansas Medical Society, Texarkana, May 3-5.
Louisiana State Medical Society, Lafayette, May 3-5.
Nebraska State Medical Society, Omaha, May 3-5.
Kansas Medical Society, Topeka, May 5-7.

CHICAGO LARYNGOLOGICAL AND CHICAGO MEDICAL SOCIETIES.

Joint Meeting held March 9, 1904.

The President, Dr. John Edwin Rhodes, in the chair.

When to Operate and When Not to Operate on the Mastoid Bone.

Dr. Henry Gradle read a paper with this title in which he reviewed the literature, and said that the reports contained therein teach, first, that suppuration of the middle ear, both acute and chronic, involves danger to life. Secondly, that even in the desperate cases reported greater success attends mastoid operations, although many of them must extend into the cranial cavity, and, thirdly, that properly timed surgical intervention would have prevented this serious extension of the disease.

In at least one-third of all instances acute mastoiditis subsides gradually after a climax of three or four days, provided there is free drainage from the middle ear. In chronic cases, a simple opening of the mastoid antrum, although often curative, is generally not the proper operation. In most cases a cure is obtained quicker and with greater certainty by the radical operation, which converts the antrum, the attic and the middle ear proper into one continuous and accessible space with exenteration of contents. A prompt radical operation is the only safe course in all instances in which irritative symptoms indicate active extension of the disease. This immediate indication is given in all chronic instances of otitic suppuration by persistent dizziness, pain or local tenderness, one-sided headache, or any symptoms suspicious of intracranial involvement.

Treatment of the Suppurative Diseases of the Accessory Sinuses of the Nose.

Dr. E. Fletcher Ingals read this paper. He said that in acute cases of suppuration of the antrum the patient should be kept quiet, the pain relieved by hot or cold compresses over the cheek, and the swelling and turgescence relieved by local applications in the region of the ostium maxillare. In chronic cases Christopher Heath recommends entering the antrum above the alveolus through the canine fossa; the tendency to closure being obviated by making an opening a centimeter or more in diameter. The radical operation consists of opening through the canine fossa and curetting thoroughly the lining of the antrum, removing at the same time any dead bone or obstructing septa.

Some cases with suppuration of the ethmoidal cells recover spontaneously, but most of them continue for many months, and even years, unless thoroughly treated. In acute cases relief may frequently be obtained by local medication that will reduce the swelling and thus allow the pent-up secretions to escape. Kiaer and Lapelle, in 364 autopsies on bodies dead from various diseases, found over 13 per cent. affected by suppuration of the sphenoidal sinus, which would indicate that the affection is very generally overlooked. On account of the dependent position of the ostium frontale and the direction of the canalis naso-frontalis, not a few patients affected with acute suppuration of the frontal sinus will recover spontaneously. In others the cure is much facilitated by local remedies which reduce the swelling, such as suprarenalin and cocain, which may be used several times daily, in the same manner as recommended for suppuration of the ethmoidal cells or for closure by swelling of the ostium maxillare, but in a considerable number of these cases the obstruction is due to nasal mucous polypi or to chronic thickening of the middle turbinated body, so that it will not be relieved in this manner. In such cases the polypi should be removed or the anterior end of the middle turbinated cut off, or both.

If the canal is completely closed, and in any case in which the disease does not yield within four or five months to treatment, it is probable that partial septa cause pus pockets in the frontal sinus, or that the walls of the cavity are much diseased. In these conditions a radical operation by an external opening through the anterior wall of the sinus is necessary.

The Symptoms and Diagnosis of the Suppurative Diseases of the Accessory Sinuses of the Nose.

Dr. Norval H. Pierce pointed out those symptoms which are common to suppurative disease of all the accessory sinuses, and followed the lines of description laid down by Hajek. Under local symptoms he discussed headache, neuralgias, secretion, etc. Under general symptoms he referred to fever, congestion and depression, nasal discharge, objective symptoms, and also spoke of atypical hypertrophies of the middle meatus, and dilatation of the maxillary sinus.

In speaking of the diagnosis reference was made to the value of transillumination. The symptoms of disease of the frontal sinus were detailed and its diagnosis discussed; also disease of the ethmoid cells, latent or closed empyema, open empyema, disease of the sphenoidal sinus, and, lastly, attention was directed to only one complication of sphenoidal empyema, namely, the extension of the inflammatory process to the orbit.

Miscellany.

MEXICO AND YELLOW FEVER.

The Yellow Fever Situation on the Mexican Border—What Is Being Done to Protect the United States.

The history of the epidemic of yellow fever which prevailed last fall in Laredo and other towns in southern Texas is detailed in the report of Surgeon G. M. Guiteras, of the Public Health and Marine-Hospital Service. This report shows the efficiency of our Public Health Service, and incidentally adds the weight of its testimony to the now scarcely contestable theory of the transmission of yellow fever solely by the mosquito.

Yellow fever appeared in Tampico, Mexico, in May, 1903, and from this starting point was carried along the line of the Mexican National Railway to Victoria, Linares, Monterey and other towns betwen Tampico and the Rio Grande. The quarantines established by the Mexican sanitary officials were perfunctory and inefficient, and the authorities in these infected Mexican towns persistently denied the existence of yellow fever, thus *creating a sense of false security* which greatly favored the rapid spread of the disease. There is strong evidence to show that the disease was introduced in Nuevo Laredo from Victoria, Mexico, early in August. Inasmuch as the two Laredos are practically one town, and that the Plaza of Nuevo Laredo, Mexico, is a popular resort and is frequented daily by Americans from Laredo, Texas, the infection of the latter town could not have been long delayed.

The first cases in Laredo, Texas, probably appeared in the latter part of July or the first week in August. Laredo physicians, with one or two exceptions, were unacquainted with yellow fever and inclined to be skeptical of its existence. The large peon population of Laredo, made up of the lowest class of Mexicans, ignorant and superstitious, seldom called a physician because of fear of being quarantined or sent to a hospital. Hence these first cases went unrecognized, and, allowing the usual time for the mosquito cycle and period of incubation, the second group of cases, which must have appeared about the third or fourth week of August, also were not recognized, or at least were not reported.

The disease was not officially reported until the third week in September, and when the officers of the Public Health and Marine-Hospital Service, detailed for the suppression of the disease, arrived on the scene, September 25, a very serious condition of affairs confronted them. Cases of yellow fever were reported in rapid succession from widely separated points, this probably being the period of the third mosquito cycle of infection, showing that the disease had already obtained a firm foothold and was widely disseminated among a population almost entirely non-immune. Add to this an abundance of stegomyiæ, thousands of unscreened water tanks and other breeding places, and an entire lack of police or other authority to enforce sanitary measures, and some idea of the difficulties of the situation can be conceived. In addition, there was the extreme difficulty of preventing infected persons crossing from the Mexican side, where the Rio Grande was not only spanned by bridges, but had ferries and innumerable skiffs along its banks, and was also easily fordable at many points. There was always the possibility of infected mosquitoes being blown across the narrow river, as the prevailing winds, before the beginning of the northers, were from the south or southeast.

In spite of these discouraging conditions, the U. S. medical officers set to work, and while the time left before the coming of cold weather was too short to expect, under these conditions, the complete eradication of the disease, some remarkable results were accomplished. These results are best shown by comparing the statistics of the epidemic in the two Laredos—Nuevo Laredo, Mexico, and Laredo, Texas. In Nuevo Laredo, Mexico, where very little anti-mosquito work was done, and that little attempted late in the season, 50 per cent. of the population contracted the disease. In Laredo, Texas, where, after the first of October, fever cases were screened, water tanks and other possible mosquito breeding places were oiled, and infected premises and surrounding abodes disinfected to kill mosquitoes, 1,050 cases developed in a population of over 10,000, constituting only about 10 per cent. of the population.

So thoroughly was the work of destroying mosquitoes, and especially the work of oiling containers and other breeding places performed, that an officer of the Public Health and Marine-Hospital Service, detailed in November to study infected yellow fever mosquitoes, could not find in Laredo, after diligent search, enough stegomyiæ in the adult, larval, or pupal stage to carry on his work.

To prevent a recrudescence of the epidemic of last year, it is necessary to clean up our towns in the vicinity of the danger line, and to induce the Mexicans to do the same in their territory. With these ends in view, the Public Health and Marine-Hospital Service has maintained throughout the winter in the towns on the Texas border an active prophylactic campaign directed toward destruction of mosquitoes and the elimination of breeding places. The surgeon-general also visited the City of Mexico in January and conferrea with the president of the Superior Board of Health of Mexico. As a result of this conference, co-operation in the work of eradicating yellow fever has been promised by the Mexican health officials, and an excellent plan of campaign has been mapped out and inaugurated in the infected Mexican towns by Dr. Liceaga, president of the Superior Board of Health.

The force of medical officers along the Texas border has recently been increased, and these officers are now making house-to-house inspections in Laredo and other towns near enough to the infected territory to be in danger of infection. The city of Laredo has been divided into 30 sections and an inspector is assigned to each of these sections. Under this system daily inspection is possible, cisterns and water tanks are being oiled and covered, and where the residents are too poor to buy the necessary covering, it is furnished at the expense of the United States government. The city authorities of Laredo are actively assisting the officers in minimizing the possibility of a recurrence of the fever, by municipal ordinances which tend to improve sanitary conditions and strengthen sanitary control.

In his instructions to officers engaged in this work, as shown in a recent number of the *Public Health Reports*, the surgeon-general lays particular stress on the necessity of screening at once all cases of fever of whatever origin, and of maintaining this protection until the danger of infecting stegomyiæ is past.

Officers of the Public Health and Marine-Hospital Service have been stationed at Vera Cruz, Tampico, and other Mexican ports, who will keep in touch with local conditions and furnish valuable information to the bureau. The work of oiling and screening water tanks and destroying mosquitoes and their breeding places goes on without remission, and the health authorities of the state of Texas are giving the hearty co-operation and support which are necessary for success. On March 31 Dr. George R. Taber, state health officer of Texas, called a meeting of the health officers of the state at Austin, and resolutions were adopted to report promptly all cases of illness, and to maintain an active anti-mosquito campaign.

The vigilance of the Public Health and Marine-Hospital Service, the evidence of harmony between federal and state officers working for a common result, and the apparent sincerity of the Mexican health authorities in taking proper precautions in their towns, all make for a solution of the problem, and the real prevention of this preventable disease seems to be at least within the bounds of probability.

The Dose of a Trustworthy Drug Is "Enough."—It is often suggested that the physician must not cling too closely to the maximum and minimum dosage statements of the Pharmacopeia. The object of medication in any case is the achievement of some definite physiologic effect. The physician should be able to expect and secure a definite uniform result every time a medicinal agent is used—allowing for the conflict of intercurrent forces or of idiosyncrasy. Drugs or measures that can not be so used are still in the domain of empiricism or experimental medicine. They have their use and their place, but the physician should not add to their number by the misuse of drugs, by using impure preparations or by the administration of a crude drug when the effect desired is the result of one of the active principles that may be isolated. We agree with the editor of the *Alkaloidal Clinic*, who remarks that physicians should deem of greater importance than they do the securing of drugs of definitely known strength and of uniform physiologic results. On such a basis the physician may make deductions from his clinical experiences; without such a basis his path will be beset with discouragements and he will be in danger of the heresy of therapeutic nihilism. With such a drug, a remedy which he can trust to produce a certain effect, a physician should give it boldly until that result is produced.

Remote Results of Ventrofixation.—T. Dolbert analyzes the remote results in 79 cases in which ventrofixation was performed during the last six years at St. Petersburg clinics. (*St. Petersburg. med. Wochenschrift*, Vol. 28, No. 20, 1903.) In 43 it was done on account of retroversio-flexion, and in 36 for prolapse. The patients in the first group were mostly slender young women, generally undernourished, nulliparæ or primiparæ. In 3 the retroflexion was movable; 18 fixed, complicating some affection of the adnexa in 34, the latter being the main indication for operative intervention. The remote results establish that ventrofixation is no more dangerous nor liable to be followed by hernia than any other laparotomy. The uterus remains permanently in its new position. In only one instance did it slip back again, and this was a much enlarged organ which should not have been fastened in this way. The fine objective results were not paralleled by the subjective, as the latter returned in more than a third of all the cases. This indicates that the neurosis apparently attributable to the displacement is in reality more or less independent of it, as is liable in all subjects with a tendency to neurasthenia or hysteria.

The Courage of the Surgeon in Emergencies.—In the *New York Times*, "a Boston physician" speaks thus of General Wood: "I remember an instance in direct proof of what I mean when I say that his successes are mainly due to his magnificent courage, his determination to do what he believes to be right, even in the face of certain punishment. In 1884, then a recent graduate from the Harvard Medical School, he was an interne at one of the Boston hospitals. An interne, I may say in explanation, is required by rule to send for the visiting surgeon in all cases requiring immediate operation, and is himself forbidden to do the work. One day an infant was brought in, suffering from membranous croup. The case was so far advanced that any delay would almost certainly result in death for the little one. Dr. Wood did not hesitate a moment. He began to work at once, carefully, fearlessly, promptly, and successfully. Five minutes later, and while both mother and patient were still in the room, the surgeon, who should have had the case according to rule, walked in. The young physician explained, but would not apologize, as he was asked to do. He had done right, and he was not going to tell any man he was sorry for it, he said. The result was that he was first suspended and then dismissed. And I call that courage."

Military Hygiene.—"The military authorities of India are exceedingly proud of the morale and the hygienic condition of their troops, and the records of the judge advocates and medical departments show a remarkable improvement in these respects, which is largely due to the scientific construction of the barracks, to the enforcement of discipline and regulations framed to suit climatic conditions, a better knowledge of the effect of food and drink, and the close observance of the laws of hygiene. The climate is very severe, particularly on Europeans, who must take good care of themselves or suffer the consequences. The death rate in all armies in time of peace should be much lower than in the ordinary community, because recruits are required to submit to physical examinations, and none but able-bodied men are enlisted. The death rate in the army of the United States before our soldiers were sent to the Philippines was remarkably low, only three or four per 1,000 per year. Some years ago in the army in India the mortality from disease was as high as sixty-nine per 1,000, but by the introduction of the reforms mentioned the rate had been reduced to nineteen per 1,000 in 1880, and for the last ten years has been less than sixteen per 1,000." The above, from the *Chicago Record Herald*, is in contrast to the reports about the French army. It is said that during 1903 50,000 cases of sickness occurred in the barracks of the French army. There were 3,500 deaths and 19,000 men were discharged because of physical disabilities. This very high rate is said to be due to the unsatisfactory state of the barracks in which the men live. According to the medical reports, only a very small part of the barracks had a proper allowance of air. Tuberculosis and typhoid are increasing with alarming rapidity. It is a noteworthy fact that the French army has only 1,500 physicians while the German army has 3,000.

Outbreaks of Sore Throat Due to Milk from Diseased Udders.—In England there have recently occurred outbreaks of sore throat due to milk obtained from cows with diseased udders. In an outbreak which occurred in Surrey the patients suffered from severe sore throat, with constitutional symptoms and enlargement of the cervical glands, which sometimes suppurated. The cases varied in severity. Ulcerated sore throat, follicular tonsillitis, and quinsy occurred. In several cases the cervical glands were markedly enlarged and they sometimes suppurated. In some cases after a few days pains in the joints occurred, which were possibly due to spread of the infection. Unlike an epidemic of diphtheria adults suffered in greater numbers than children. It was found that four of the cows in a herd which supplied the milk taken by the patients were suffering from mammitis and yielded pinkish-colored curdy milk, which in the case of two formed a layer resembling pus. Bacteriologic examination showed the presence of organisms—streptococci and staphylococci—similar to those usually associated with severe cases of sore throat and similar to those found in swabs taken from the throats of the patients. A noteworthy point was that external examination of the udders gave no indications of the condition such as would have been yielded by tuberculous udders. It was only on milking the cows that the mammitis was discovered. In another outbreak of sore throat which took place at Finchley, a London suburb, very similar symptoms were observed. About 100 cases occurred. After an incubation period of about 24 hours the patients complained of sore throat, malaise and enlargement and tenderness of the cervical glands. The tonsils were frequently inflamed and sometimes suppurated. In some cases the posterior cervical and supraclavicular glands were enlarged. The complications were gland abscesses, cellulitis, and neuralgia. In a few cases a measly eruption was observed on the lower limbs. Two of the cows which supplied the milk were found to have contracted a chill, with the effect that their milk was curdled. It is suggested that the only way to prevent such outbreaks is regular and frequent veterinary inspection of milch cows.

The Small Medical Society.—The size of a medical society may indicate somewhat its strength and importance. From the standpoint of the society, growth is a good sign. The more members brought to join it, the wider its influence, the larger the number benefited by it. But from the standpoint of the individual member who goes into a medical society to learn something, or for the opportunity of seeing things from other men's points of view, the benefit is not at all proportioned to the size of the society. What any one of us can hear, does not depend on how many others are listening to the same speaker. What one can understand or what new ideas will be awakened in him, depends but little on how many others are present. In any well-conducted meeting, there can be but a single speaker at a time. For the purpose of the member who is learning anything, one speaker and one hearer constitute the active participants, even in the largest gatherings. In many respects the ideal conditions for learning exist only when there are but two present. So that there can be question and immediate answer, and the speaker's words can be addressed exactly to the thought of that particular hearer. One might wonder why any one should prefer to listen in a large medical gathering rather than in a small one. Of course, if one goes to a medical meeting solely for the benevolent purpose of instructing his fellow-members, or for the less benevolent purpose of advertising his skill in some specialty, or to hear himself talk, or to get his name in the papers, the larger the meeting he can get to listen to him the better. But the mass of those who go to medical meetings are listeners. Even of those who talk, fewer can do so in the larger meetings. This has led to the breaking up of the largest medical gatherings into "sections," and always with increased interest and benefit. In view of these facts there should be no hesitation about organizing a county medical society because its membership would be small. When physicians will not do so, or will not attend their county medical society because its meetings are small, they do not understand the value of contact with others of their profession. They do not realize that modern medicine has been built up by the contact of one mind with another. A vital difference between the physician and the quack is that one recognizes the importance of working with his fellows, while the other does not.—Edward Jackson in *Colorado Medicine*.

The anti-malarial operations in India, at Mian Mir, which were initiated by the members of the Royal Society's Malarial Commission to demonstrate that malarial fever can be prevented by destruction of the particular mosquito which is the definite host of the parasite, have been partly successful. Mian Mir was chosen as a very malarious station, and as one in which a marked reduction in the number of mosquitoes could be affected. The season of new infection begins in July, and the number of new infections increase until October, when the maximum is attained. The *Anopheles culicifacies* is the chief, if not the only carrier of malaria. It breeds in the irrigation watercourses, which run more or less throughout the year. Only two forms of malarial parasite have been found—the benign tertian and the malignant tertian. A high percentage of children in the various bazaars are infected, and as they are not treated, form the chief source from which anopheles become infected. The prevalence of malaria is greatest near the breeding place. In April, 1902, operations were commenced. They consisted of destruction of the anopheles, removal of a number of infected persons from the breeding places, destruction of the parasites in infected persons by quinin, and administration of prophylactic doses of quinin to the troops. The operations against the mosquitoes were principally directed against the larvæ. They consisted in keeping the sides of the watercourses smooth and free from grass for many months, in lining one of the watercourses with brick and plastering it with cement, in drying out and cleansing each branch watercourse every ten days, and in pouring kerosene oil on the watercourses, and in filling in pools and emptying out water from the surface drains. Bricking in of the old watercourses was not successful in destroying the breeding grounds. To achieve this a very narrow channel had to be built in the bed of the old one to secure a swift running stream. In the hot season the oiling of pools had to be repeated at least every three days as the larvæ developed rapidly and the oil quickly evaporated. The *Anopheles culicifacies* appears to survive the Punjab winter solely by "hibernating larvæ." It was attempted during the winter to kill all such larvæ within a wide area. By the end of February, 1903, all larvæ had been killed within a radius of two miles, and no adult insects were present in the houses. Nevertheless, the number of adults present in the houses and the number of larvæ in the breeding places increased month by month to a maximum in October, and then quickly decreased, although operations were discontinued. It seems doubtful whether anything short of permanent extermination of all breeding places will produce a marked reduction. However, these experiments, which were carried out in the bazaars and military lines, prove that even a slight reduction affects the amount of malaria. The number of cases of malarial fever among the troops was the lowest on record.

Physical Culture.

Jay W. Seaver, M.D., of Yale University, president of the Chautauqua School of Physical Education and of the American Institute of Physical Culture, spoke before the physicians of Boston and vicinity, at the rooms of the institute, March 12. Dr. Seaver referred to exercise as being as necessary for health as sunlight, fresh air, and food; no healthy animal grows into vigorous maturity without performing many movements that are in themselves useless and unnecessary so far as accomplishing work is concerned; but the movements are taken from an innate restlessness that makes the young child play instead of rest. All play is founded on physical activity, and this activity becomes recreative, restful and helpful, according to the needs of the body.

Exercise is a therapeutic means that can not be ignored. For years attention has been given to what has been called medical gymnastics in the treatment of various forms of disease, and the method has gradually grown in the estimation of medical men until it is the chief agent used in treating many cases of deformity, malnutrition and nervous conditions.

Exercise may be looked upon from the esthetic standpoint, as a means of producing a more symmetrical and artistic physical development, but more especially in producing a graceful carriage and a control of the body. Emphasis, however, was laid on exercise as a developmental and therapeutic measure, a means of securing such strength and activity as is characteristic of health and ability to do the work of life. This is accomplished largely through the influence that exercise has on the nervous system, in giving it a normal outlet for the force that is generated in the brain; as it were, putting an implement in the hands of the brain for the accomplishing of its purpose; and, in the second place, it improves the circulation, so that each part of the body has its due amount of nutrition, and its waste material is swept away, so that the tissues are not poisoned by the products of ordinary wear and tear.

The problem of nutrition to-day is not so largely a matter of abundance of food as it is an economic use of food by the system, and this economy is carried out by adequate circulation that eliminates waste and overcomes local stagnation. Modern life has its decided tendency to limit the physical activities, and many of the ills that require the attention of physicians are due to the physical restraints that encumber life. The modern business man does not get his morning walk to his place of business, his communications with other business men are carried on over the telephone, and the brain in general attends to a multitude of details that in previous generations would have been mixed in with a large number of physical activities that would have reacted favorably on his general nutrition.

Therapeutics.

[Our readers are invited to send favorite prescriptions or outlines of treatment, such as have been tried and found useful, for publication in these columns. The writer's name must be attached, but it will be published or omitted as he may prefer. It is the aim of this department to aid the general practitioner by giving practical prescriptions and, in brief, methods of treatment for the diseases seen especially in every-day practice. Proper inquiries concerning general formulae and outlines of treatment are answered in these columns without allusion to inquirer.]

Empyroform.

Skarlek, *in Amer. Med.*, recommends empyroform in the treatment of eczema to calm the itching and check the secretion. It can be used where tar can not be tolerated by the patient.

It may be combined as follows:

℞. Empyroform
Amyli, āā ....ʒvi 24
Vaselini ....℥iss 45
M. Ft. unguentum. Sig.: Apply locally; or:

℞. Empyroform ....ʒiv 15
Glycerini ....ʒiiss 10
Aq. destil. ....℥i 30
Alcoholis ....ʒiiss 10
M. For external use; or:

℞. Empyroform ....ʒi-ʒiiss 4.-10
Spts. chloroformi
Tinct. benzoini, āā............................℥ii 60
M. Sig.: To be applied locally to the affected areas.

Dysmenorrhea.

The following combination is recommended to relieve the pain in dysmenorrhea:

℞. Dionin ....gr. xv 1
Aq. laurocerasi............................℥i 30
M. Sig.: Thirty drops in water three or four times daily.

Tapeworm.

The following outline of treatment is recommended by C. Query in the treatment for the removal of tapeworm:

℞. Pepo (seeds) ....ʒx 40
Ext. granati ....ʒiiss 10
M. Sig.: Divide into twenty parts and take five every half hour, after fasting for twenty-four hours. One-half hour after the last dose the following should be given:

℞. Tinct. jalapæ co.
Syr. frangulæ, āā............................ʒvi 24
M. Sig.: At one dose.

Rheumatism in Children.

The diet and the digestive organs must be carefully observed in the treatment of rheumatic conditions in children. according to J. E. Winters in *Med. Rec.*. Calomel should be given, followed by rhubarb and soda. The latter should be continued as long as the tongue is furred. The dose of the rhubarb should vary with the condition of the bowels. Soda should be given in twenty-grain doses before each meal. Milk should be the sole food as long as evident symptoms remain. The proteid of the milk contains no nuclein, and yields no uric acid. It does contain potassium phosphate and citric acid.

Cereals must be eaten without sugar.

Sweets and animal broths, alcohol and sweets in adults are the bane of rheumatic patients.

Vegetable soups—pea, asparagus, celery, potato, bean, or tomato—are very nutritive. Animal broths or cereals are valuable, as adjuncts, to stimulate the appetite, and not for their food value. As soon as the symptoms of rheumatism have vanished, strained cereals, vegetable soups, baked potato, bread, green vegetables and fruit may be added to the diet. The failure in the dietetic management lies in the excessive use of broths and other animal food, sugar and sweet desserts, the use of alcohol, and the withdrawal of fruits and cereals.

Thrush.

Thrush, according to Illoway in *Med. News*, is a disease of filth and uncleanliness on the part of the mother or nurse, and is contracted through the bottle, breast or nipple, and the parasite is always introduced from without. In the lighter forms of thrush, where the epithelial layer has not been penetrated, sodium borate made up with honey into a paste and applied locally, is of value. The hyposulphite of soda is recommended by the author, on the basis that the parasite thrives only in an acid medium, as asserted by some authors. He combines it as follows:

℞.	Sodii hyposulph.	gr. xx	1	30
	Aq. destil.	ʒv	20	
	Glycerini	ʒiii	12	

M. Sig.: One teaspoonful every two hours, to be taken internally. And it should be applied locally with a camel's hair brush.

In the severer forms silver nitrate is recommended by some authors.

The following combination is also recommended as of great value as an antiseptic and astringent:

℞.	Zinci sulph.	gr. ii-v		12-.30
	Aquæ rosæ	ʒii	60	

M. Sig.: Apply locally.

A weak solution of the bichlorid of mercury in alcohol and applied with the finger is said to effect a cure after one or two applications. This, however, should be applied only by the physician.

Baginsky recommends the application of potassium permanganate topically in a 1 to 25 solution, and resorcin internally in solution of 1 to 100; one to four teaspoonfuls being given daily. The author places the greatest faith in the application of iodin combined as follows:

℞.	Tinct. iodi	ʒss	2	
	Glycerini	ʒiiiss	14	

M. Sig.: Apply locally with a camel's hair brush pencil.

By this latter treatment the author states that the disease is completely eradicated within three or four days after the first treatment. He does not ascribe all the curative properties to the iodin, but regards glycerin as a very important factor. This treatment surpasses any treatment heretofore instituted; it is harmless and rapid in its action.

In cases where aphthæ occur in the mouths of adults the following combinations are of service:

℞.	Formalin	m. viii		50
	Aq. camphoræ	℥iii	90	

M. Sig.: As a mouth wash; or:

℞.	Pot. chloratis	ʒss	2	
	Tinct. myrrhæ	m. xx	1	30
	Elix. calisayæ q. s. ad	℥iii	90	

M. Sig.: One teaspoonful in water every three hours.

Or as a local application:

℞.	Acidi salicylici	gr. x		65
	Acidi borici	ʒss	2	
	Glycerini	ʒii	8	
	Aquæ q. s. ad	℥ii	60	

M. Sig.: To be applied locally to the ulcers.

Anal Fissure.

Katzenstein, in *Merck's Archives*, gives the following outline of treatment in fissure of the anus: Anesthetize the nerve ends in the fissure by applying cocain and overcoming the spasmodic contraction of the sphincter with belladonna and disinfecting the parts by applying ichthyol, combined and applied as follows:

A piece of cotton is twisted into a cord about the size of a knitting needle and dipped into a solution composed of:

℞.	Ext. belladonnæ	gr. viii		50
	Cocainæ hydrochlor.	gr. i		06
	Ichthyol	ʒiss	6	

M. Sig.: Insert the cotton in the rectum along the wall opposite the fissure, where it is left until expelled spontaneously. According to the author this application repeated twice a day will effect a cure within a week or two weeks.

Local Medication in Diseases of the Throat and Nose.

The following combinations are recommended by Ball in his "Dis. of Nose and Pharynx," as local antiseptic applications in the treatment of throat and nasal troubles:

℞.	Acidi carbol.	gr. iv		25
	Aquæ calcis	℥i	30	

M. Sig.: As an antiseptic gargle in diphtheritic sore throat; or:

℞.	Liq. hydrarg. perchlor.			
	Glycerini, āā	ʒi	4	
	Aquæ q. s. ad	℥i	30	

M. Sig.: As an antiseptic gargle; or:

℞.	Liq. potass. perman.	m. ii		12
	Aquæ	℥i	30	

M. Ft. solutio. Sig.: To be used locally in the form of a gargle.

The following combination containing tannin may be used locally as a spray or gargle:

℞.	Acidi tannici	gr. x-xx	.65-1	20
	Glycerini	ʒss-i	2.-4	
	Aquæ	℥i	30	

M. Sig.: As a spray or gargle, or combined as follows:

℞.	Aluminis	gr. viii		50
	Acidi tannici	gr. vi		40
	Aquæ q. s. ad	℥i	30	

M. Sig.: As a local application.

In inflammatory, ulcerative and diphtheritic sore throats the following combination is recommended by the author:

℞.	Tinct. iodi	gtt. iiss		15
	Sodii chloridi	gr. v		30
	Aquæ	℥i	30	

M. Sig.: As a gargle, to be repeated several times through the day.

In chronic pharyngitis the following is recommended:

℞.	Iodi	gr. x		65
	Potass. iodidi	gr. xx	1	30
	Glycerini	℥i	30	

M. Sig.: To be applied locally on a swab.

About three minims of the oil of peppermint may be added to the foregoing if an anesthetic effect on the mucous membrane is desired.

In the treatment of ozena the following is recommended:

℞.	Thymol	gr. ss-i		03-.06
	Spts. vini rect.			
	Glycerini, āā	ʒss	2	
	Aquæ q. s. ad	℥i	30	

M. Sig.: To be used as a stimulating spray.

As an insufflation to be used in chronic rhinitis and nasopharyngitis the following is of service:

℞.	Acidi tannici	gr. x		65
	Pulv. camphoræ	ʒi	4	
	Pulv. amyli q. s. ad	℥i	30	

M. Sig.: To be insufflated two or three times daily.

A stimulating powder, recommended in atrophic rhinitis and some of the forms of chronic rhinitis, may be composed as follows:

℞.	Acidi salicylici	ʒi	4	
	Magnesiæ ponderosæ	℥i	30	

M. Sig.: To be used in the form of an insufflation.

Quinin Subcutaneously.

The following combination containing quinin is recommended by Aufrecht, administered hypodermically:

R.	Quin. hydrochlor.	gr. viiss	50
	Urethani	gr. iv	25
	Aquæ destil.	ʒi	4

M. Sig.: At one dose hypodermically.

The urethane, according to the author, increases the solubility of the quinin and consequently lessens the *quantity of fluid necessary to hold the quinin in solution.*

[Urethane is an ethyl ether of carbamic acid obtained by heating a salt of urea with ethyl alcohol.]

Erosions of Cervix Uteri.

According to an abstract in the *N. Y. and Phil. Med. Jour., Lutaud recommends the following combination as a local application in the treatment* of simple erosions of the cervix accompanied by slight inflammatory changes:

R.	Tinct. iodi	℥ss	15
	Morph. hydrochlor.	gr. x	65

M. Sig.: Apply to the cervix with a small brush every *second day, tamponing in the meantime* with cotton.

Small ulcers may be touched with a stick of silver nitrate. If large or chronic and co-existing with *endometritis and* leucorrhea, the following powder should be applied locally:

R.	Iodoformi	ʒx	40
	Acidi salicylici		
	Bismuthi subnit., āā	ʒiiss	10
	Camphoræ	gr. lxxv	5

M. Sig.: Apply with an insufflator, followed by *a tampon.* The camphor is used to mask the odor of the *iodoform.*

If gonorrhea is suspected, wash the surface of the ulcer with hot water and apply the following:

R.	*Fuchsin*	ʒiiss	10
	Alcoholis		
	Aquæ, āā	℥ii	60

M. To be painted over the ulcers.

A tampon should be subsequently inserted, consisting of iodoform gauze and permitted to remain for twenty-four hours. If a fetid discharge appears, inject potassium permanganate 1 to 5,000 solution.

Medicolegal.

Not Evidence of Insanity.—The Supreme Court of Idaho holds, in the case of Curtis vs. Kirkpatrick, that the fact that one is a believer in spiritualism, and makes many statements apparently unreasonable, is not evidence of insanity.

Act as to Manufacture of Clothing Valid as Health Law.—The Court of Appeals of Maryland, in the case of State vs. Hyman, holds constitutional, as a health measure, the legislation of 1902 regulating the manufacture in tenement and dwelling houses of wearing apparel intended for sale. It says it supposes that it is a matter of fact of which a court may take judicial notice that the manufacture of wearing apparel in improperly ventilated, unsanitary and overcrowded apartments will likely promote the spread of, if it *does not* engender, disease, and it is obviously within the police power of the state to regulate the number of persons who may be employed in any tenement or other establishment where this manufacture is carried on, so that the public health may be conserved. Again, referring to a statutory provision that at least 400 cubic feet of clear space should be allowed in each room for each occupant in manufacturing establishments, and that a permit be secured setting forth the number of persons allowed to be employed in each room, the court says that it certainly requires no discussion to show that such a regulation is strictly and essentially *a* health regulation.

Trial Too Soon After Surgical Operation.—The Supreme Court of New Jersey says that, in the personal injury case of Searles vs. the Elizabeth, Plainfield & Central Jersey Railway Co., the company sought *a new trial on the* ground of excessive damages. If the disability resulting from the injuries was likely *to* be permanent, the damages would not be regarded *as* so excessive as to warrant an interference with *the* verdict, which awarded to the wife $12,000 damages, and to the husband $3,000, for injuries to the former, who sustained severe bruises of the head, limbs and spinal column. But it appearing that the *trial was* brought on so soon after a surgical operation on the patient, namely, a couple of days *over a* month after the removal by an incision of the coccyx, that sufficient time had not elapsed to enable the physicians to determine as to whether the operation would result in her complete or partial recovery—a result which they regarded, however, as highly *probable*—and it thereby appearing that justice *had not* been done by the verdict, it was held that, in the exercise *of* its sound discretion, it became the duty of the reviewing court to set aside the verdict and grant a new trial.

Death from Poison Taken for Coercion or in Experiment.—The Supreme Court of Michigan says of the case of Courtemanche vs. Supreme Court of the Independent Order of Foresters that it was a peculiar one. Perhaps none could arise where the act of the deceased (if the defendant's *claim* was true that his death was due to the voluntary taking of carbolic acid, not with the intent of causing death, but to frighten his wife into giving him money) could present a more pusillanimous act. But it holds that such act would not prevent a recovery of benefit insurance by the widow, though the certificate stated that it did not include assurance against self-destruction or suicide. Perhaps, it says, the word "culpability" is a proper one to use if not enlarged to include negligence, in which no moral question is involved, but it thinks such a question would be more appropriately raised under a provision excepting cases of death caused while engaged in an unlawful act—a provision found in most policies, and regarding which the authorities *are numerous.* It was urged that a policy which in express terms should contemplate and provide insurance against the danger resulting from the voluntary taking a chance of death, as in this case, would be void, as opposed to public policy. The court answers that, if the proofs showed that this was an experiment to determine whether death would follow *the taking of the drug,* showing that *the contingency* of death was not overlooked, *it* is possible that it might be justified in saying that such act, if followed by death, was not within the intent of the parties to the contract; but there was nothing in this case to indicate a design to take life, or that deceased thought that he was courting danger of death.

Dying Declarations Not Altered by Call for Relief.—In Hawkins vs. State, where the Court of Appeals of Maryland affirms a conviction of manslaughter by an abortion, an exception was taken to the admission of certain declarations on account of the testimony of a physician that when he was called in the declarant said: "Oh, doctor, I am dying. I want you to relieve me." It was argued that this was rather a cry for help than the utterance of an abandonment of *hope.* Again, it was said that she continued to repeat she was dying, and that he must help her—must relieve her in some way. But the court says that to assume, in the face of all testimony in the case, that her cry for relief disproved the sincerity of her statement that she knew she was dying, would be to deny to her the privilege of asking the alleviation of what *the* doctor said he knew as soon as he saw her was intense *agony.* Nor, the court continues, was it a natural or reasonable conclusion that the doctor did not think death impending because he gave her a hypodermic injection, and told her she would be relieved in a little while. This injection was plainly given to relieve the agony, and it is common knowledge that such treatment does mercifully render suffering or dying persons insensible to pain. The relief the doctor promised *was* what she asked—a respite from agony, not an escape from death. And it must not be forgotten that it is not material the physician may think the patient may or will recover if the latter fully believes death is actually impending. The court says further that it can not adopt the view of the Kentucky court in Matherly vs. Commonwealth, 19 S. W. Rep. 977, that the desire to have a physician sent for clearly indicates in any case that the deceased had hope of living, though he said he was going to die. This inference must be controlled by all the circumstances of the case.

Current Medical Literature.

AMERICAN.

Titles marked with an asterisk (*) are abstracted below.

American Medicine, Philadelphia.

April 2.

1 *Fifteen Years' Experience with Uterine Fibroids. Willis E. Ford.
2 *Electricity in Medicine. James J. Walsh.
3 Preliminary Report of a Series of Metabolism Observations Made in Atrophic Arthritis, Hypertrophic Arthritis, Osteitis Deformans and the Normal. (To be concluded.) Joel E. Goldthwait, Charles F. Painter and Robert B. Osgood.
4 *Sarcoma of the Nasal Passages. An Inductive Study Based on the Records of 150 Cases. J. A. Watson.
5 Toxemia Associated with Tuberculosis of the Cervical Lymphatic Glands, with Report of a Case. Arthur W. Elting.
6 Acquired Hydrophthalmus. Edward Stieren.
7 Use and Abuse of the Imagination in the Experiments and Observations in Medicine. John C. Hemmeter.

1. **Uterine Fibroids.**—Commencing with the history of the surgery of fibroids, Ford relates his own experience. The total number of cases he has treated and of which he has been able to ascertain the subsequent histories has been 162. Of this number 96 were treated by galvanism; 26 were improved as regards hemorrhages; pain, etc., and 7 recovered. Some few of the above improved relapsed. Twenty-five patients were improved, that is, the tumor became smaller, and in only one case was there any accident or injury from the use of the heavy current of electricity. Of the 31 cases treated by tying the uterine arteries through the vagina and by curettement, together with medicinal treatment by ergot, thyroid, etc., 24 were temporarily improved and 7 unimproved, though in the improved cases the tumors were not appreciably diminished in size. He thinks the method of tying the arteries is not advisable. The number of cases operated on was 61. Six of these were by abdominal section and external treatment of the stump; 2 died. In one case the patient died from cerebral apoplexy, which she had suffered from previously, the other had a very large tumor, the fibroid sloughed and death was due to septicemia. Since then all his abdominal operations have been done by supravaginal amputation after Baer's method, with 4 deaths in 34 operations. By vaginal hysterectomy he has removed 10 with one death. The number of operations was rather larger than would be the case ordinarily, and he thinks there are many cases in which operation is not called for, and quotes Hirst in respect to the indications for operation. He thinks that fibroids have a definite period of growth, though not according to any well-understood rule. In many cases they disappear. His rule now is to operate and remove any fibroid that is threatening life by hemorrhage, any soft, rapidly-growing myomas, any very large tumor causing pressure on the adjacent organs so as to produce invalidism, and any tumor which seems to be undergoing degenerative change. Many small fibroids have remained stationary under his observation for 15 years. A few tumors have disappeared without his knowing the cause. While no treatment other than surgical is of much service, if it is declined then galvanism will do more than any other method.

2. **Electricity in Medicine.**—Walsh apparently thinks that electricity is over-estimated, and that much of its effect is due to mental suggestion, yet there are certain results, such as an increase of blood pressure from static electricity, which may produce great improvement, and the relief of neuralgia by the Roentgen ray treatment, etc. He believes that we are only on the threshold of our knowledge in regard to radioactivity. It may yet bring us physical remedies as powerful as the chemical substances which we have used empirically.

4. **Sarcoma of the Nasal Passages.**—Watson finds from an analysis of 150 cases, so far as it goes, that there seems to be a greater liability to nasal sarcoma in the fifth decade than at other periods. Otherwise age seems to have little effect. Males are much more commonly affected than females. He thinks that it is not at all improbable that sarcoma arises from malignant transformation of nasal polypi, and gives his arguments for this view. Stenosis is necessarily the most common symptom. Spontaneous hemorrhage is next. Pain is mentioned but twenty-four times in the records of the series, though he thinks it is much more frequent than this. When it occurs it may vary in type and location. Commonly it is referred directly to the growth, but is sometimes widely radiated. Offensive discharge and external deformity add to the inconveniences. Serious impairment of the general health is often postponed until late. He discusses the diagnosis, and remarks that it is probable that sarcoma of this region is less malignant than that occurring elsewhere. The occurrence of metastasis is extremely rare; he has found it mentioned but three times. The average duration of life in the fatal cases appears to be about two years from the first appearance of the symptoms. Outside of surgery the only hopeful treatment is that by toxins, either of *Streptococcus erysipelatis* or Coley's fluid. He is convinced that the restriction of the growth in his own third case was due to the attacks of erysipelas. In 64 cases treated by intranasal operation, the percentage of recoveries was 54.68, and he thinks that this proportion indicates the propriety of the adoption of the milder operative measures in selected instances, at least. There is little justification, he holds, in the objection on account of the possibility of exciting the growth to greater malignancy. In any event there can certainly be no justification for primary external operation on small pedunculated sarcoma in an easily accessible region.

Medical Record, New York.

April 2.

8 *Hip and Thigh Amputations for Sarcoma of the Femur. George F. Shrady.
9 *Diagnosis of Thoracic Aneurism. Charles E. Nammack.
10 *Modern Treatment of Dacryocystitis. Alfred Wiener.
11 *Thymic Tracheostenosis with Report of a Fatal Case. William W. Carter.
12 The Kollmann Five-glass Test. George T. Mundorff.
13 Antistreptococcic Serum in the Treatment of Smallpox. Alfred C. Smith.
14 Importance of Treatment in the Early Stages of Arterial Degeneration. Louis F. Bishop.
15 Five Laparotomies on One Patient. Howard Crutcher.
16 Our Rural Water Supplies. A Word for the Thoughtful. Harvey B. Bashore.
17 A Radiographic Surprise. W. I. LeFevre.

8. **Sarcoma of the Femur.**—Shrady reports a case of amputation for sarcoma of the femur which, on account of the patient's objections, was not performed at the hip-joint, but as near to that point as was safe without sacrificing the joint. The patient has remained well for over twenty-one years. He remarks from this case and from other facts that, considering the small number of recoveries altogether, this speaks well for the possibility of suspending the extreme operation in some selected cases. There are few objections, he says, to thigh amputation, which do not apply to complete removal of the femur, and while he does not oppose hip disarticulation for sarcoma on general principles, he is still inclined to think that in some cases simple thigh operations may succeed, as in the case reported.

9. **Thoracic Aneurism.**—Nammack describes the symptoms of thoracic aneurism and remarks that while sometimes the diagnosis is easy, in other cases it may be exceedingly indefinite and obscure. It is determined by the recognition of the causative conditions, the symptoms and physical examination, not assuming the existence of aneurism in the absence of expansile pulsation. Aneurism of the ascending aorta gives better physical signs than that of the descending portion. Aspiration may be required in some cases. The value of the *x*-ray in diagnosis is considerable. The condition, he thinks, is not as rare as has been considered in the past. He enumerates other thoracic conditions which may give rise to confusion, such as solid intrathoracic growths, carcinoma, mediastinal abscess or tumor and pulsating empyema. Other conditions such as aortic regurgitation with dilatation of arch, aortic stenosis, and cardiac hypertrophy may be differentiated by careful reading of the physical signs. It is a mistaken notion in clinical medicine that aneurism will furnish an invariable thrill and mur-

mur. While the prognosis is bad, cure may occur from obliteration of the sac by coagulation of the blood, and the aim of treatment is to secure this by retarding the circulation and lowering the blood pressure. Absolute rest in bed, restriction of food and drink and the use of iodids in fair but not large doses will accomplish all that can be done.

10. **Dacrocystitis.**—Wiener pleads for more radical operation in this condition—extirpation of the sac. He thinks the aftereffects have everything in favor of extirpation and nothing against it: it has the advantage of destroying the source of infection and is in experienced hands a simple procedure. The indications are long-continued suppuration, chronic blenorrhea of the sac, chronic catarrh of the sac, with an organic stricture, disease of the bone with caries, and blennorrhea, and in relatively recent cases, with ulcus serpens or when an operation for cataract or glaucoma is contemplated or in fresh injuries of the cornea and in tuberculosis of the sac. He thinks this operation is growing in favor among continental surgeons.

11. **Thymic Tracheostenosis.**—This term is used as differentiating the condition caused by pressure of a hypertrophied thymus on the trachea, from an enlargement of the gland downward, interfering with the circulation. Carter reports a case which leads him to make the following observations and suggestions:

1. In all cases of laryngeal stridor it should be determined whether or not the thymus is enlarged.
2. On account of surgical shock being badly borne by infants, and especially those in this condition, if the symptoms are not urgent, postural treatment should be tried, and if, in any position of the head and neck, relief is afforded, that position should be maintained by suitable apparatus until Nature has effected a cure by enlargement of the thorax, strengthening the tracheal rings, and diminution in the size of the gland.
3. Intubation, tracheotomy and artificial respiration do no good.
4. The surgical procedure of opening the mediastinum, bringing forward the gland and stitching it to the tissue over the sternum, should be performed immediately if there is danger from asphyxia.

Medical News, New York.

April 2.

18 *Specific Therapy of Tuberculosis and Vaccination Against the Disease. Eduardo Maragliano.
19 *Treatment of Neurasthenia. Howell T. Pershing.
20 Abdominal Ascites with 150 Tappings. E. K. Browd.
21 *Home Treatment of the Tuberculous "Is Just As Good"--But It Is Not. Henry Levien.
22 *Importance of Dropsy as a Symptom. A. C. Morgan.

18. **Tuberculosis.**—This article is noticed editorially and in the news department last week.

19.—This article appeared elsewhere. See The Journal of February 20, ¶39, p. 558.

21. **Tuberculosis.**—Levien criticizes the home treatment of tuberculosis, which he thinks fails through lack of proper hygienic control, the indulgence of friends and the want of facilities to meet the conditions. He reports two cases, which he thinks illustrate its failure. It is our duty, he says, to have the public impressed with the importance of fresh air, nourishing food, and above all of rigid supervision by physicians and nurses. These needs are best met by establishing sanatoria in sufficient number to supply the demands. The home treatment as a treatment is meaningless and a step backward, and may prove a menace to consumptives and mislead the public mind in believing it to be a new treatment.

22. **Dropsy.**—Morgan points out the importance of dropsy as a symptom, the cause of which, he thinks, must always be sought for and removed.

New York Medical Journal.

April 2.

23 *Critical Review of Some of the Recent Literature of Tuberculosis. Jonathan Wright.
24 *When Should the Tuberculous Patient Be Sent from Home? C. P. Ambler.
25 Laboratory Diagnosis. (To be continued.) M. P. Overholser.
26 Skiagraphic Errors; Their Causes, Dangers and Prevention. (Continued.) Lewis G. Cole.
27 Case of Infection with the Bacillus Aerogenes Capsulatus. S. W. Sappington.
28 Some Drug and Alcoholic Habitués. Samuel B. Lyon.

23. **Tuberculosis.**—Wright's paper is largely a review of Behring's theories, which are criticised in some detail. He thinks that Behring minimizes heredity too much, and that the majority of patients with phthisis will be found to have phthisical ancestors.

24. **Tuberculosis.**—Ambler discusses the climatic and sanatorium treatment of tuberculosis. He thinks the congregation of a number of patients in a sanatorium or carefully conducted boarding-house is preferable to allowing them to go to houses where hygienic regulations are not sufficiently considered. The advantages of change of climate may be summed up in better nutrition. The patient should endeavor to remain in the region where the improvement has occurred, and months should elapse after all signs of the disease have subsided before he returns to his own home.

Boston Medical and Surgical Journal.

March 17.

29 *Forcible Correction in Lateral Curvature of the Spine. Fourth paper. Robert W. Lovett.
30 *Hydrotherapeutic Prescriptions. Joseph H. Pratt.
31 An Account of the Work, Including Obstetrical Technic, at the Lying-in Hospital of the City of New York. Charles H. Bradley.

29. **Lateral Curvature of the Spine.**—Lovett criticises the methods that have been adopted, showing their disadvantages, and claims that the best chance for improvement in cases of severe scoliosis seems to be first, in the use of severe force to secure an improved and, if possible, over-corrected position temporarily and, second, to retain as much as possible the position thus secured during some part of the growing period. For this purpose a high degree of force is required. He deals with the subject theoretically, and describes the apparatus which has been constructed by Dr. E. B. Adams of the Boston City Hospital. It consists of a strong oblong frame fitted with a movable cross-bar, holding clamps for the pelvis, and a series of three rings, likewise movable, at the poles of which are inserted screws by which great pressure can be exerted on the different points as desired. He illustrates the apparatus, and its effects on the patients, claiming the following advantages:

1. The most economical use possible is made of the corrective force by applying it sideways, and thus less force is required or the same amount of force will do more than in extension of the spine. 2. The force is applied to the spine while slack and not made tense by extension. 3. Side correction is made by one part of the appliance. 4. Correction of rotation is made by another part of the appliance. 5. The pelvis is held in a position which ensures some flattening of the lumbar curve, which in the upright position tends on account of the balance of the patient to bring about straightening of the dorsal curve. 6. Finally, it may be said that general pathologic considerations would seem to indicate that retention in the corrected position should induce changes in the shape and relations of the misshapen bones.

30. **Hydrotherapeutic Prescriptions.**—Pratt reviews the uses of hydrotherapy in the different forms of disease, and concludes with a series of some thirty-five methods of its application.

Cincinnati Lancet-Clinic.

April 2.

32 *Uses of the Gastrodiaphane in the Diagnosis of Certain Gastric and Abdominal Affections. Frank L. Rattermann.
33 Some Few Observations on Hamlet—Was He Sane or Insane? If Insane, Was He Responsible? A. N. Ellis.

32. **The Gastrodiaphane.**—Rattermann gives the history of the invention of the gastrodiaphane and the methods of its use. He thinks it is not more difficult for the patient to swallow than the ordinary stomach tube. It works best in lean persons. The operator should pass an ordinary stomach tube for several days to a week prior in order to accustom the pharynx to the sensation which is at first produced. In case of gastric ulcer the instrument should be used with caution, and never when blood has been vomited or passed by the bowels within a few weeks. It should never be used in severe cases of heart disease or chronic bronchitis, in the aged or very weak, or in any advanced cases of tuberculosis or immediately after hemorrhage from any internal organ. Six weeks at least should elapse before any attempt at gastrodiaphany. The light should not be burned continuously; it is well to cut it off and allow the lamp to cool. He contradicts Kuttner and Einhorn's assertion that the lamp never becomes too hot as not agreeing with his experience. The method can be practiced with the patient in either an upright or horizontal position. A dark room is not necessary, though preferable. It is not necessary to have the stomach completely empty. The size of the picture depends on the amount of water in the stomach. The shadow view on the abdomen moves upward and downward as the lamp is pushed down into the stomach. The picture during respira-

tion moves upward and downward on the abdominal wall as the result of the connection of the stomach with the diaphragm. He finds that one is enabled not only to recognize the transverse colon by the dark shadow line lying below the greater curvature of the stomach, but likewise the dark shadow of the liver above and to the right side, and even, under favorable circumstances, those of projections, as tumors, gall bladder or dislocated spleen, etc. Frequently the recti muscles produce certain shadows on the picture, and it has been noticed that the view darkens and brightens with each pulsation of the heart. He claims that the gastrodiaphane under favorable conditions can be of valuable service in differential diagnosis of certain tumors of the gall bladder and carcinoma of the pylorus or a completely descended kidney fixed by adhesions and on a level with a normally located pylorus, pyloric carcinomas, or a dislocated spleen or tumors. Lastly, in certain cases to clinch the diagnosis of carcinomatous infiltrations in the anterior wall of the stomach. While a simpler means may often be effective, nevertheless there are cases in which the instrument may be of very great assistance.

Southern California Practitioner, Los Angeles.

March.

34 Relationship of Diseases of the Bronchi and Lungs to Those of the Nose and Throat. Frank W. Thomas.
35 *Management of Pneumonia with Special Reference to Hydrotherapy. Simon Baruch.
36 Cotton Mather, Zabdiel Boylston and Inoculation. James G. Mumford.

35. **Management of Pneumonia.**—The plan of treatment recommended by Baruch consists : 1. In absolute rest and isolation. 2. Thorough ventilation, abundance of fresh air; plenty of oxygen in this manner will avoid the necessity of later oxygen inhalation. 3. Drink. The patient should receive from four to six ounces of water at 40 F. every hour. He often orders a few drops of hydrochloric acid or other placebo to be taken in four to six ounces of ice water every hour to insure regular administration. 4. Stimulation. This is unnecessary, except in alcoholics who are accustomed to it. Such cases may receive from ½ to 1 ounce of brandy every three or four hours, according to the previous habits. 5. Medication. Baruch is still in the habit of beginning the treatment of all cases of pneumonia with 8 or 10 gr. of calomel so as to clear out the system, given dry on the tongue and the mouth well rinsed with water mixed with calomel before it is swallowed, so as to prevent ptyalism and destroy diplococci in the mouth. Several copious movements of the bowels should follow this, if not, citrate of magnesium is administered. He says avoid the small doses of 1/10 of a grain so frequently administered. They disturb the patient and irritate the intestinal canal. Strychnin is sometimes useful when the first sound of the heart becomes feeble, and should be given hypodermically in doses of 1/60 to 1/30 gr. every six hours. Small doses of the coal tar preparations are sometimes good calmative agents. One dose of from 6 to 8 grains of ammonol will produce sleep and quiet the patient. It should not be given oftener than once in twenty-four hours. 6. Hydrotherapy. In children he uses the tub bath, not less than 85 F. with constant friction, for six to ten minutes whenever the rectal temperature is over 102. Sleep, if natural, should not be disturbed In adults he does not use the tub bath because of the disturbance to the patient. The toxemia in pneumonia is rarely so intense as in typhoid, and the temperature yields more readily. He therefore uses wet compresses consisting of three thicknesses of old linen in the shape of an old-fashioned oil-silk jacket or loose waistcoat, open at the shoulders: This is wrung out of water at 60 F., applied around the entire chest and snugly covered with a similarly shaped piece of flannel, a little larger in size, without any impervious covering. This is repeated every hour while the patient is awake until the rectal temperature reaches 99.5. It is never removed from the chest unless thoroughly warm. This application fulfills the following therapeutic indications: The gentle shock and reaction following it produces a refreshment of the nervous system; inspiration is deepened, dyspnea, which Baruch thinks is a sign of diplococcus infection rather than pulmonary obstruction, is relieved. The patient brightens up and feels refreshed. Heart failure is prevented. It acts as a direct tonic to the heart. The elimination of toxins is furthered by improvement in the circulation and the quantity of urine increased. Perspiration is another elimination process which is favored. The alkalinity of the blood has been shown to be increased. The temperature is reduced after each cold compress. The abstraction of heat is followed by a reaction which warms the damp linen. He says see to it that the nurse does not apply oiled silk over the compress and make a poultice of it, relaxing the vasoconstrictors and making the cutaneous circulation sluggish, which is not desirable. He thinks with this management the crisis is not often observed; lysis is the ordinary resulting process. After the acute manifestations have subsided, the temperature and pulse being normal, the patient may be allowed to rise, and after a few days ride out if the weather is propitious, even though the physical signs indicate that resolution is not complete. He has reduced by this method the mortality in his hospital practice from 50 per cent. down to only 12 per cent., which, considering the desperate character of the cases, many of them being poor Italians and persons of bad habits, is a very excellent percentage. He claims that this method is based on the conservative tendencies of the human organism, which must not be embarrassed by powerful medicine, but aided and encouraged. Careful watching of the patient and earnest attention to the minutest details are essential to success.

Ophthalmic Record, Chicago.

March.

37 *Further Investigation Concerning Eye Defects in Students. Edgar James Swift.
38 Some Notes on Bullous Keratitis. Howard F. Hansell.
39 *Hygiene of the Eyes in Mexican Schools. M. Uribe Troncoso.
40 Optic Atrophy Following Iodoform Poisoning. Walter H. Snyder.
41 *Small Shot Injuries of the Eyeball. H. Moulton.
42 Simple Phorometer Adapted for Use at the Reading Distance. William A. Martin.
43 Primary Chancre of Conjunctiva Followed Ten Years Later by Interstitial Keratitis of the Same Eye. F. W. Marlow.
44 Corectopia and Ectopia Lentis. Extraction of the Opaque and Dislocated Lens. Cassius D. Westcott.
45 *Corneal Ulcer Notes. H. Gifford.

37. **Eye Defects in Students.**—The subjects of Swift's study were students in the State Normal School at Stevens Point, Wis. The tests included the usual ones for vision, the card test for astigmatism, the Maddox multiple rod test for muscle insufficiency, and diagnosing errors of refraction by means of the ophthalmoscope. All these methods were used for each subject, and their results are classified in groups. A summary of the observations is stated as follows:

> 1. Only 22.22 per cent. of the 216 students examined had normal vision. 2. Of those with normal vision only one failed to disclose some manifest error of refraction or muscle insufficiency. 3. Thirty-five of the 48 with normal vision showed manifest compound hyperopic astigmatism in one or both eyes, while of the remainder, 4 had simple hyperopic astigmatism and 4 others hyperopia. In most of the cases more or less muscle insufficiency was evident. 4. In 30 per cent. of those examined the vision of one or both eyes—the most defective where there was a difference—was below 20/30, while between 19 and 20 per cent.—nearly as many as had normal vision—were unable to read the 20/40 line at a distance of twenty feet.

39. **Eye Hygiene in Mexican Schools.**—Troncoso has inspected the eyes of the pupils in the Normal School of Mexico City, including more than 500 students, and reports the results. He finds that pure hypermetropia diminishes in proportion to the age, but hyperopic astigmatism becomes more frequent. The number of cases of myopia amounts to 19 per cent. The proportion of myopic cases in Mexico in proportion to some other countries is not considerable. The influence of race, he says, is notable. In place of the widely separated orbits of the broad-faced German, who has difficulty in obtaining convergence, we find the head of the Mexican native narrow, and convergence easy. The abundant and prolonged daylight, even in the winter time, also has a bearing on the comparative infrequency of myopia in Mexico, but the proportion of cases of ametropia is considerable. Fully 42 per cent. of the pupils in the Normal School have not sufficiently clear vision to enable them to follow the teacher's explanations on the blackboard, and 25 per cent. require such close approximation that it is incompatible with the functional integrity of the organ. A reform in school building it was supposed would relieve the condition. but this has not proved the case, and the detection and

correction of ocular and aural defects is necessary to check diseases of these organs in their incipiency. He pleads for the general adoption of systematic school inspection and a warning sent to parents of the defective children, calling on them to secure proper medical advice.

41. **Small Shot Injuries of the Eyeball.**—Moulton calls attention particularly to two forms of shot injury, those in which the shot perforates the lid or the orbit wall and impinges at a tangent on the sclerotic without perforating it, but with such force as to cause rupture of intra-ocular vessels and hemorrhage within the vitreous chamber. Another form is where the shot makes a puncture and counter-puncture in the globe, that is, passes directly through the orbit. In the first of these the prognosis, if guarded, is relatively good; in the second not absolutely bad, especially if the point of entrance does not involve the "dangerous region." Five cases are reported illustrating these injuries. His idea, he says, is to encourage in suitable cases the adoption of a reasonable conservatism in the treatment where a wound has been made by a body more likely than any other to have passed through the orbit or glanced off from it.

45. **Corneal Ulcer.**—The advantages of the Saemisch cut are noted by Gifford and the supplementing of the cut in severer cases with burning of the ulcer. In mild cases he would prefer to scrape it thoroughly and apply one of the milder caustic acids, with re-opening of the cut every twelve hours at least. If after twenty-four hours the progress of the ulcer is not certainly stopped, the edges of the cut should be cauterized so as to open into the anterior chamber. If this, in connection with a pressure bandage, does not produce constant leakage of the aqueous or a certain cessation of the infection, enough tissue should be burned out to insure leakage. He thinks the advantages of the Saemisch cut are due not only to the relief of tension, but also to the flooding of the parts with alexins or natural antitoxins and bacterolysins of the blood contained in the aqueous. He endorses the recommendation of Fox and Bulson of trichloracetic acid for the milder forms of ulcer. Since using it he has almost discontinued the use of iodin. In the severer forms, however, it is not to be relied on. If after a single application, however, it is evident that the infection continues, it is better to use the galvano- or Paquelin cautery. He thinks this latter is not used enough in eye surgery. It has the advantage of greater penetrating power and that it does not require to be so hot as to dazzle the eye of the operator and embarrass accurate use. He thinks it also of value in the removal of epithelioma; for burning out the stump of the optic nerve, and in the few cases when it is necessary to destroy the tear sac.

Annals of Otology, Rhinology and Laryngology, St. Louis.

December.

46 Paraffin Prothesis. James T. Campbell.
47 *Modification of the Krieg Operation for Deviated Septum. F. Gurney Stubbs.
48 *Platinum Rhinitis. Lorenzo B. Lockard.
49 Otitic Serous Meningitis, Lumbar Puncture—Recovery. Francis H. Huber.
50 Primary Epithelioma of the Nasal Fossæ, with Report of Case. S. Ingerman.
51 Mastoid Disease and Cerebellar Abscess. Seymour Oppenheimer.

47. **Septal Deviations.**—The modification of Krieg's operation here proposed by Stubbs is as follows: After the usual preparation and cocainization,

> With an ordinary scalpel an incision is made perpendicularly along the entire anterior edge of the triangular cartilage or side of convexity, this being facilitated by drawing the fleshy part of septum sharply to opposite side. With a small, flat, somewhat curved on the flat, perichondritome or elevator the muco-perichondrum is separated over the convexity. Then beginning at anterior edge of cartilage do the same on side of concavity. The field of vision is improved by having the assistant, who stands behind the patient to steady head, use one or two blunt hooks or retractors to open naris in place of nose speculum. If desired a stitch can be taken in fleshy portion of septum, which will include a strip of gauze. This will help to retract anterior edge of septum to opposite side. When both sides of cartilage are stripped the mucous membranes generally balloon to opposite sides and expose the cartilage in its entirety. The cartilage is now cut out preferably with a pair of Grünwald's alligator scissors. If more is desired to be removed superiorly or inferiorly, it can be trimmed down with a pair of Krause's fenestrated cutting forceps. Should there be a bony involvement in the deviation, continue the separation backward of periosteum, and remove the bone with a pair of fenestrated cutting forceps, preferably those of Laurent. If deviation involves only posterior half of cartilage, the incision in same can easily be made in front of convexity and muco-perichondrium separated only over concavity of deviation. With all deviation removed the linear incision can be stitched *or not*, as suits the operator, while moderate snug packing on both sides brings the muco-perichondrial walls firmly together and prevents an accumulation of blood between them.

He mentions the advantages of this operation as shortening the time, giving a better command of the field of operation, less hemorrhage, no flap being made that can be injured, preservation of entire intact mucous membrane, resulting straight and even septum, need of but few instruments, and these not special ones, the non-occurrence of perforation if the membrane is punctured on side of concavity, shortening of time of repair and the successful removal of the obstruction.

48. **Platinum Rhinitis.**—This condition has been observed by Lockard. The patient was a photographer and the attacks had been diagnosed as hay fever. They occurred only after he had taken up the use of platinum paper for photographic prints, and in the beginning never appeared unless he had been at work in the dark room for thirty to ninety minutes, and rapidly subsided, but at present they occur in a few minutes and never completely subside. On handling other prints the symptoms do not occur. As they are elicited by the use of the dry paper their chemistry need not be considered. He has seen four other cases, with almost identical histories. In all of them the absence of any ulceration or necrosis would indicate that the platinum action is of purely mechanical origin. He knows of no effective treatment except change of profession and discontinuance of work with this particular substance.

The Laryngoscope, St. Louis.

March.

53 *Radical Operation for the Cure of Chronic Suppuration of the Antrum of Highmore, Sphenoid Sinus and Ethmoid Cells. T. Passmore Berens.
54 *Tuberculosis of the Larynx. Sidney Yankauer.
55 *Middle Turbinal Hypertrophy as a Cause of Hay Fever and Other Disturbances, Nasal and Otherwise. Edward J. Brown.
56 Pipe Smokers' Ulcer of the Hard Palate. Adolph Rupp.
57 *Septum Narium in Aborigines and the Cause of Deviations of the Septum in General. W. Freudenthal.
58 *Case of Objective Tinnitus Auri. Arthur I. Weil.

53. **Antral Disease.**—Berens reports a case where an extensive operation of opening the anterior wall of the antrum was performed and the cavity was found full of myxomatous masses, granulation and pus. After freeing the antrum the sphenoidal cavities were also found involved, and had to be thoroughly cleared out. The operation is described in detail on account of the advantages which the author thinks it offers over the nasal route. The results have been so far good, though the age of the patient was not favorable, the condition of long standing and the damage extensive.

54. **Tuberculosis of the Larynx.**—Yankauer's article is a review of the recent literature on the subject.

55. **Middle Turbinate Hypertrophy.**—In this article by Brown disorders of the middle turbinate are considered as a very probable cause of many cases of hay fever, supporting Bosworth's contention. Brown has carefully examined the condition of this organ in his cases, removing the hypertrophied growths. He says few nasal operations are followed by such brilliant results as are often met with here. His own practice has been to remove a part of the bone in nearly all cases, and while he has regretted this in some instances, he has quite as often regretted that he did not remove more. He is doubtful whether any antitoxic or any other local or systemic medication will render unnecessary the intelligent surgical treatment of most of these cases.

57. **Septal Deviations.**—Freudenthal finds that deviations occur not only in civilized but in uncivilized races. Trauma may be eliminated as the cause in many instances, and the high arched palate has been disproved as a causal factor by Talbot. The most plausible explanation, and one that he has held to for a long time, is that of Chiari, that human individuals are asymmetrical. This asymmetry is most evident where the two halves of the body join together as in the septum. The side on which the growth is strongest will develop the most tissue, and convexity will take place and increase more and more until deflection results. In practice, however, we see

cases where the septum is almost as thin as paper in its convex part, and here he thinks the deposition of tissue must have stopped and a rarefying process set in on the concave side. The cause of this is hard to explain, but he thinks it is probably due, like the other condition, to an increased tissue building by the various human customs.

58. **Objective Tinnitus Auri.**—In the case observed by Weil the connection of the ear of the observer with that of the patient revealed a loud systolic murmur, synchronous with the heart beat, varying in intensity. The patient, of course, experienced symptoms much more actual and the hearing was impaired on both sides. The cause for these objective symptoms was not found. The heart, lungs, and chest were apparently normal. No signs of aneurism could be detected anywhere, no anemia and no venous hum in the neck. The ears, nose and pharynx are normal and also the appearance of the ocular fundi. He discusses the literature of this condition, and the causes that have been assigned to it, and shows how they have failed to explain it. He remarks, in conclusion, that where no aneurism can be determined and no marked anemia exists, the cause of persistent objective tinnitus will remain a mystery.

Journal of Infectious Diseases, Chicago.

March 19.

59 Toxic Action of Scarlatinal and Pneumonic Sera on Paramecia. Alice Hamilton
60 *Pneumococcal Bronchiolitis (Capillary Bronchitis). C. P. Clark and F. H. Batman.
61 Improved Technic of Agglutination Test in Typhoid Fever—the Use of Formalinized Cultures. E. H. Ruediger.
62 *Bacillus Mucosus Capsulatus. A Study of the Group and an Attempt at Classification of the Varieties Described. Roger G. Perkins.
63 Agglutination in the Group of Fluorescent Bacteria. Mary C. Lincoln.
64 *Studies in Pneumonia and Pneumococcus Infections Edward C. Rosenow.
65 Epidemic Gonorrheal Vulvo-vaginitis in Young Girls. Joseph L. Baer.
66 Critical Study of the Methods in Current Use for the Determination of Free and Albuminoid Ammonia in Sewage. Earle B. Phelps.
67 *Simple Test for the Routine Detection of the Colon Bacillus in Drinking Water. William R. Stokes.
68 *Isolation of Bacillus Coli Communis from the Alimentary Tract of Fish and the Significance Thereof. George A. Johnson.
69 *Sodium Sulphite: A Dangerous Food Preservative. Charles Harrington.
70 Studies of Media for the Quantitative Estimation of Bacteria in Water and Sewage. Stephen De M. Gage and George O. Adams.

60. **Pneumococcal Bronchiolitis.**—Clark and Batman report a fatal case of pneumonia in which the examination showed that the large bronchi were free from inflammation and the alveoli were little affected. Bronchopneumonia in this case must be considered secondary. The bronchioles were the seat of the infection. The case should be regarded as one of capillary bronchitis, or preferably bronchiolitis, occurring in a young man aged 21. The inflammation was bilateral, affected all the bronchioles, and extended into the minutest subdivisions. The bacteriologic examination showed the *Diplococcus lanceolatus* to be the essential etiologic factor. The clinical diagnosis was pneumonia, probably associated with miliary tuberculosis. The case is also of interest in that it occurred during an epidemic of lobar pneumonia, in which over 3,000 individuals died in six months, and, in the great majority, of consolidation pneumonia, while in this case there was a diffuse affection practically free from consolidation.

62. **Bacillus Mucosus Capsulatus.**—Perkins finds that under this name are indicated a number of organisms described otherwise under various names, and closely related morphologically and culturally, but differing in certain characteristics. Fermentation experiments showed constant results that may be used as a basis for the separation of the different members of the group according to their ability to ferment lactose and saccharose. The organisms of the group are widespread, and have been found in almost all pathologic lesions which may be caused by bacteria. Such infections are exceedingly frequent in Cleveland, and appear to be almost exclusively due to the members of the *Bactrium aerogenes* division. These organisms may form gas from the body carbohydrates, either during life or just after death. The portal of entry of the infection appears to be the nose and mouth, and secondarily, the digestive tract.

64. **Pneumococcus Infections.**—Rosenow gives the following conclusions as justifiable:

1. With improved technic, using for inoculation large quantities of blood, the pneumococcus can be recovered in practically all cases of croupous pneumonia, and in obscure cases of pneumococcus infection blood cultures may be a diagnostic method of positive value. 2. Pneumococcemia in pneumonia does not mean an especially unfavorable prognosis, and it is to be regarded here, as in subcutaneous pneumococcus infections of the rabbit, not as an especially ominous or agonal process, but rather as an integral part of the infection. 3. There seems to be a diminution either in the number or viability, or both, of the pneumococci in the blood at the time of crisis. 4. The number of leucocytes in pneumonia in man and in the pneumococcus infection of the rabbit is an index to the degree of resistance, and the leucocytes probably constitute an important factor in combating the infection. The clinical observation that a high leucocytosis means a favorable prognosis irrespective of the presence of pneumococci in the blood is undoubtedly correct. 5. The hypoleucocytosis developing on a previous hyperleucocytosis during the course of many fatal cases of lobar pneumonia (and in pneumococcus infection of the rabbit), can not be looked on as due to the entrance of the pneumococcus cells into the blood stream, but probably rather as the result of an exhaustion of the resisting powers. 6. The leuoocytosis may be incited, at least in part, by soluble substances liberated by pneumococci. 7. It was not possible to establish any appreciable difference in the degree of virulence of the pneumococcus isolated early or late in the course of the disease, nor in the fatal or non fatal cases. 8. Fresh normal and pneumonic blood and serum have no bactericidal influence on the pneumococcus. Whatever other differences they may have, so far as this point goes, the serum from pneumonia patients behaves exactly as does normal serum. 9. The interesting question whether lobar pneumonia is the primary result of a direct local infection of the lung, or a secondary localization of a primary blood invasion, is as yet hardly ripe for final discussion, but that the latter does occur, at least in some instances, is not altogether unlikely. 10. Agglutination of the pneumococcus by pneumonic serum is constant, but the conclusion drawn by certain investigators that the voluminous sediment and the early clouding of certain immune sera in which the pneumococcus is cultivated are due to a rapid lysis of the cocci seems incorrect. It seems to concern a precipitate the result of acids which appear when pneumococci are grown in pneumonic serum. 11. The production of acids by pneumococci in pneumonic serum suggests that some of the toxic symptomss of pneumonia may be due to acid intoxication. This needs further study. 12. Since the viability and the virulence of the pneumococcus are preserved for a remarkably long period on blood agar, we have in this medium an important aid to all investigations of this micro organism. The constituent of the blood which has this rather remarkable effect is probably the hemoglobin. Blood-agar plates are valuable for differentiation of pneumococci and streptococci. 13. That the pneumococcus by its growth in rabbits produces a soluble hemolysin for the corpuscles of this animal is probably true. That this is either small in amount or unstable, or both, is likely.

67.—See abstract in THE JOURNAL, xli, p. 1293.

68.—Ibid.

69.—Ibid., p. 1292.

Columbus Medical Journal.

March.

71 *Collection and Registration of Vital Statistics. Cressy L. Wilbur.
72 *Local Treatment for Varicose Ulcers. Fred Fletcher.
73 *Shall Consumptives Be Excluded from the Schools? C. O. Probst.
74 Typhoid Fever in Columbus. Report of Commission.

71. **Vital Statistics.**—Wilbur calls attention to the importance of vital statistics, and illustrates the inconveniences of their absence by cases observed by the Chicago Health Department and the author's own observations in Michigan. He urges physicians to favor legislative action in the matter.

72. **Varicose Ulcers.**—Fletcher recommends for the treatment of varicose ulcers the saturation of a good-sized piece of gauze with bovinine, and its application to the ulcer, covering it over with gutta-percha tissue, and changing it every six hours. This, or a modified form of treatment, using gauze with bovinine or salt solution, is applicable to all varieties of varicose ulcers.

73. **Consumptives, Shall They Be Excluded from the Schools?**—Probst discusses the question whether consumptive teachers or scholars should be excluded from schools. He remarks that if consumption were transmitted as smallpox or scarlet fever, there would be no need to discuss the question, but it is not. It is not necessary to enforce absolute rules excluding consumptives, but it is essential that they should be educated to carry out necessary measures to prevent the communication of the disease. They should also be dissuaded from attending school for their own sake. If teachers and children were thoroughly instructed in regard to this matter, much good could be done.

St. Louis Courier of Medicine.

March.

75 *Serum Treatment of Summer Diarrhea. John Zahorsky.
76 *Physicotherapy in the Cure of Cancer. J. A. Riviere.
77 *Experiments on the Preservation of Milk. C. A. Snodgrass.
78 *Brief Note on Frost-bite in Young Children. W. A. Hardaway.
79 Pregnancy Complicated with Cyst of Ovary. Operation, Recovery. Report of Case. Charles H. Dixon.

75. **Serum Treatment for Summer Diarrhea.**—Zahorsky used two forms of anti-dysentery serum prepared by Parke, Davis & Co., the first in which only one race of the micro-organism was used, which was called monovalent, and the other in which several varieties of dysentery bacilli were employed, called polyvalent. He reports cases treated with both, and concludes that the monovalent anti-dysentery serum was too uncertain in its action for general use, but the polyvalent serum should be given a trial in all cases of summer diarrhea.

76. **Cancer.**—The physicotherapy used by Riviere consisted in radiotherapy, static breezes, franklinization, high frequency currents, static baths, arsonvalization, etc. The effects were the disappearance of the edema, engorgement and indurations, cessation of pain, cicatrization, disappearance of cachexia and disappearance of the tumor. He thinks it a useful method to obtain retrogression of malignant tumors, sedative action and disappearance of glandular engorgement, besides being the only possible recourse in inoperable neoplasms, especially the vegetating and ulcerating forms and in recurrence after operative ablation. The field exposed for treatment should include a wide area around the tumor.

77. **Milk Preservation.**—Snodgrass, the city bacteriologist of St. Louis, says the object of his experiments was to determine the effect on milk of ordinary room temperature without the use of chemical preservatives, the effects of refrigeration or the addition of formalin in various proportions and the rapidity of multiplication of typhoid bacilli in sterile milk without preservatives. He tabulates his findings, and concludes that the ordinary commercial milk kept at room temperature is generally unwholesome at the end of twenty-four hours, to say the least; it is sour to the taste. We must also infer that the ordinary commercial milk kept at 44.6 F. remains wholesome for four days or more. Ordinary commercial milk does not remain wholesome for twenty-four hours when kept at room temperature with the addition of formalin 1 in 25,000 or 1 in 50,000, and questionably so when the dilution is made 1 in 10,000. In adding formalin to refrigeration the wholesomeness of the milk is improved only when the dilutions are made 1 in 10,000 and 1 in 25,000. The rapid increase of typhoid bacilli indicates that milk infected with pathogenic organisms whose rate of increase is about the same, becomes rapidly dangerous at a temperature of 77 F. Refrigeration, therefore, he concludes, is far more efficacious than the use of formalin without refrigeration in the preservation of commercial milk.

78. **Frost-Bite in Children.**—Hardaway reports three cases in which there was an erythematous area on the face with considerable discomfort, increased temperature and slight enlargement of the cervical glands. The children had been exposed out driving in very cold weather, and the condition was practically a frost-bite. He thinks this accident is probably well known in the colder climates, but most physicians seem to be unfamiliar with it. In all cases the child had a fair complexion and light hair.

Therapeutic Gazette, Detroit.

March 15.

80 *A Short Supplement to Dr. Barton Cooke Hirst's Paper on the Treatment of Puerperal Eclampsia. James Tyson.
81 *Small Hospital Epidemic of Pneumococcus Infections, with Remarks on Transmission of Pneumonia and the Methods by Which It Can Be Prevented. David L. Edsall and Albert A. Ghriskey.
82 *Importance of Epistaxis in Diagnosis of Nasal Diphtheria. James H. McKee.
83 *Curative Effect of Erysipelas on Atrophic Rhinitis. I. Valentine Levi.
84 Venesection as a Therapeutic Measure in Lobar Pneumonia. G. A. Shank.

80. **Puerperal Eclampsia.**—Tyson takes up the point of the use of morphin in puerperal eclampsia, and holds that it is safe in case the kidney is capable of eliminating it. Since most cases of puerperal eclampsia occur in connection with parenchymatous nephritis the results are often brilliant. Should it happen, however, that the condition is an interstitial one, especially in cases where nephritis preceded the pregnancy, its use is attended with very grave risks. In order to secure the best results of treatment in uremic convulsions by hypodermoclysis with normal salt solution, he holds that sweating should precede the infusion, as it is possible, he thinks, to overload the venous side of the circulation and dangerously dilate the right heart. He thinks we would do well to use blood letting more frequently in other than puerperal cases, or by sweating to make room for salt solution subsequently introduced. The depletion removes a certain amount of toxic matter, which is still further diluted by the salt solution.

81. **Pneumococcus Infection.**—The direct contagion of pneumonia is discussed by Edsall and Ghriskey, who report an interesting series of cases occurring in the Episcopal Hospital, Philadelphia, in April, 1903. There was a patient there suffering from a severe attack of pneumonia. He was evidently overwhelmed with pneumococci, for the blood cultures gave a free growth of these organisms. The patient died, and although the bedclothes were changed, the bed aired and the ward cleaned, the man who succeeded him in his bed showed a growth of pure pneumococci in his blood in twenty-four hours after his admission. There were no other signs of pneumonia, excepting a fairly marked bronchitis. The next day he was transferred to another ward, and the patient following, a man of 22, with sciatica, was admitted and happened to be placed in the same bed. He remained there about thirty-six hours, and in less than two days after being transferred he developed a pneumonia of the entire left lower lobe, which was mild. Within a day or two a boy of 14, with tubercular meningitis, was placed in the same bed after its vacation, and two days after his arrival showed an increase of temperature with leucocytosis of 14,000; his respiration grew rapid and remained so. It was never determined that he had pneumonia, but in view of the facts concerning the other cases the authors think that he must have had some other form of pneumococcus infection. Five days after having been placed in this bed he died. A postmortem could not be obtained. The day after this a patient, an adult man of 42, with mild alcoholism, was placed in the same bed, and two days later showed a sudden rise of temperature, pain in the right side, and later in the day had clear signs of pneumonia of the right lower lobe. This took a mild course, and the man recovered. The day after this man's admission there was placed in the bed opposite, and about ten feet away from the one occupied by him, a patient in the first week of typhoid fever. Two days later a blood culture was taken from him, and a pure culture of pneumococci was obtained. He, however, went through a mild course of typhoid without any signs of pneumonia or other complication, and recovered without any special incidents. When the second case of pneumonia developed in bed No. 2 and the second pure culture of pneumococci was obtained in the ward from a typhoid patient, it appeared to the hospital authorities that pneumonia contagion was occurring, and the ward was formalinized and no cases occurred subsequently. The reason why the beds were so rapidly occupied was because that ward was used for the temporary detention of noisy patients, who were kept there for only a short time. The epidemic, while there were only two cases of pneumonia, is of interest, especially in connection with the cases occurring without pneumonia, but with pneumococci in the blood. Edsall and Ghriskey think the ideal method would be to isolate cases of pneumonia, but this is almost impracticable at present. It would be a good thing to make it a reportable disease, and the practice of disinfecting after almost every infectious disease, they believe, is getting to be more general. The observations are of interest also in relation to the period of incubation. They show that this may have been less than forty-eight hours in one case, and only a little more than that in the other. Other authors, Weibell for instance, have observed that the period of incubation may be very brief.

82. **Epistaxis in Nasal Diphtheria.**—McKee describes a series of cases, and thinks that in connection with other facts

they justify the following views: 1. That the slight staining of nasal discharge with blood, either in mild or severe nasal diphtheria, would seem to be due to the severity of the local disease. The nasal mucous membrane bleeds very easily. In subacute cases the moderate epistaxis may be dependent on the depth of the inflammatory process. Ulcers may exist on the nasal septum. 3. The slight or moderate hemorrhages in the more acute cases are probably dependent on the toxemia. Of course, the idiosyncrasy of the individual plays its part. 4. The alarming or even fatal nasal hemorrhages in severe diphtheria are always dependent on profound toxemia. In conclusion he summarizes as follows:

> 1. Staining of the nasal discharge with blood is quite commonly seen in nasal diphtheria, and epistaxis of moderate severity is not infrequently observed. 2. Nosebleed is a symptom of much diagnostic value, for it may suggest the possibility of nasal diphtheria in any case, but particularly in the dangerous (to the community) mild case. Among the causes of epistaxis, diphtheria of the nose should be accorded a separate and prominent place. 3. In malignant, mixed, or strepto-diphtheria (Northrup) of the nose, epistaxis may be most alarming and may even be the immediate cause of the fatal termination.

83. **Erysipelas and Atrophic Rhinitis.**—Levi reports a case of atrophic rhinitis which recovered after a third attack of epistaxis, and a subsequent operation revealed no evidence of the former condition. He does not explain the mechanism of the cure, but suggests that the pathology of the two diseases is diametrically opposite. In one we have anemia and atrophy, and in the other hyperemia and swelling. The action of the bacterial products of erysipelas on certain other diseases is significant. Beside the case here reported he finds but three other similar ones on record.

Medical Age, Detroit.
March 25.

85 Pathology of Lobar Pneumonia. R. W. Knox.
86 Etiology of Speech Disorders. James M. Brown.
87 Incipient and Acute Insane—Recoverability and the Factors Therein. J. E. Courtney.

American Practitioner and News, Louisville.
March 1.

88 Present State of Radiotherapy. J. R. Wathen.
89 Some Observations in Treating Acute Morphin Poisoning. Arthur Kipp.

Virgina Medical Semi-Monthly, Richmond.
March 25.

90 Atrophy of the Prostate. Robert C. Bryan.
91 Furuncle and Carbuncle. Wallace Neff.
92 Diphtheria Antitoxin—Its Production, Uses, etc. William R. Jones.
93 X-ray for Reducing Enlarged Tonsils. Alexander Irvine.
94 Infant Feeding. Loren B. T. Johnson.
95 Aseptic Technic in Obstetrics. John Egerton Cannaday.
96 Unique Cases: (1) Gauze Sponge Used in a Laparotomy Passed by Bowel; (2) Bowel Ruptured Some Time Before Appendectomy—Recovery; (3) Rupture of Hepatic Abscess Through Diaphragm Into Lung—Recovery Without Operation; (4) Sloughing Off of Cervix Uteri and Lacerated Uterus. John W. Dillard.
97 Some Unappreciated Uses of the X-ray. Alfred L. Gray.
98 Dangers of the X-ray Operator. John T. Pitkin.

Journal of Eye, Ear and Throat Diseases, Baltimore.
January-February.

99 Treatment of Adenoid Vegetations. John R. Winslow.

Physician and Surgeon, Detroit and Ann Arbor.
February.

100 Chronic Rhinitis, Its Varieties and Treatment. Otto T. Freer.
101 Stoll on Medical Ethics (1788). George Dock.
102 Treatment of Chronic Non-tuberculous Inflammation of the Lungs and Pleura. Ernest L. Shurly.

Medical Mirror, St. Louis.
March.

103 Peritoneal Adhesions—False Ankylosis of Arm. Robert T. Morris.
104 Bronchopneumonia. H. R. Hall.
105 Brief Observations on Some Conditions in Women That Are of Much Concern to the Practitioner. J. Ridgly Simms.
106 Important Points in Physical Diagnosis. C. H. Wainwright.
107 A Man Without an Appendix. H. C. Dalton.
108 Theory of La Grippe and of the Exhaustion Following the Same. Joseph E. Harris.

Proceedings of the Pathological Society of Philadelphia.
February.

109 Review of the Recent Literature on the Pathology of the Liver. Joseph Sailer.
110 Case of Splenomegaly, with Cirrhosis of the Liver. Clifford B. Farr.
111 Pancreatic Hemorrhage; Death: Autopsy. B. Franklin Stahl.
112 Report of Committee on Morbid Growths Concerning Dr. Stahl's Specimen.
113 Case of Xanthoma. Joseph McFarland.
114 Uremic Hemiplegia, with Changes in the Nerve Cells of the Brain and Cord, and Recent Primary Degeneration of the Central Motor Tract. T. H. Weisenburg.

Kansas City Medical Record.
March.

115 Clinical Significance of Pleuritic Effusion. A. L. Fulton.
116 Uterine Fibromyoma. F. T. Van Eman.

Detroit Medical Journal.
March.

117 Dysmenhorrhea and Allied Manifestations. Ella B. Everitt.
118 Some Observations on the Surgery of the Ear. Don M. Campbell.
119 Flap from the Fascia Lata in the Operation for the Radical Cure of Inguinal Hernia. Hal C. Wyman.
120 Mastoid Operation vs. Wilde's Incision on a Child Not Quite Eight Months Old. Emil Amberg.

Journal of Medicine and Science, Portland, Ore.
March.

121 Conservatism in Gynecology. C. E. Williams.
122 Mesotan and Aspirin in Rheumatic Eye Affections. James F. Smith.

Nashville Journal of Medicine and Surgery.
February.

123 Shall the Consultant Divide Fees with the General Practitioner? Charles S. Briggs.

Oklahoma Medical News-Journal.
March.

124 Appendicitis. W. J. Jolly.
125 Fracture of the Humerus of a Child in Its Delivery. J. T. Moore.

Colorado Medical Journal, Denver.
January.

126 s Mellitus. E. P. Hershey.
127 the Anesthetist. Cuthbert Powell.
128 W. Stevens.
129 External Diseases of the Eye. Wm. C. Bane.

Medical Herald, St. Joseph, Mo.
March.

130 Typhoid Fever and Its Treatment. B. A. Bobb.
131 Foreign Bodies in Bronchi: Treatment. John Boyd Tyrrell.
132 tion. G. A. Johnson.
133 E. Walker.
134
135 Treatment of Abortion. Frederick Treon.
136 Pathology and Morbid Anatomy of Lobar Pneumonia. P. B. McLaughlin.
137 Vesicular Mole. F. J. Huizenga.

Journal of the Association of Military Surgeons, Carlisle, Pa.
April.

138 Further Observations on the Treatment of Tuberculosis at Fort Stanton, New Mexico. Paul M. Carrington.
139 Treatment of Fractures of the Base of the Skull and Some Remarks Concerning the Method of Operating. Robert E. Bell.
140 Plea for Early Radical Treatment in Adenitis Inguinalis. Richard L. Sutton.
141 Some Experiments with the Trypanosoma Evansi. Edwin D. Kilbourne.
142 Military Hospitals and Nursing. Matt R. Root.
143 Red Cross Society of Japan. Nicholas Senn.

Alabama Medical Journal, Birmingham.
March.

144 Puerperal Eclampsia. E. B. Ward.
145 Address, Jefferson County Medical Society. W. H. Wilder.

Uterine Curettement.—In The Journal, April 2, p. 919, Dr. Craig was represented in our abstract as advocating minimal dilatation. This was the opinion of another authority, but which appeared to be Dr. Craig's policy. He advises quite the contrary.

FOREIGN.

Titles marked with an asterisk (*) are abstracted below. Clinical lectures, single case reports and trials of new drugs and artificial foods are omitted unless of exceptional general interest.

British Medical Journal, London.
March 26.

1 *Coagulation Time of the Blood in Pregnant and Puerperal Women Suffering from Albuminuria and Eclampsia. Carstairs Douglas.
2 *Two Cases Involving the Question of the Site of Impregnation. Harrison Cripps and Herbert Williamson.
3 *Ventrofixation of the Uterus. W. J. Sinclair.
4 *Warning Sign of Danger to the Child During Labor. Frederic E. Daniel.
5 Clinical Notes on the Use of Bossi's Dilator. W. B. Armstrong.
6 Case of Tubal Gestation: Primary Intraperitoneal Rupture; Operation; Recovery. Brennan Dyball.
7 Treatment of Puerperal Eclampsia by a Combined Method. John Lithgow.
8 Abstracts of Hunterian Lectures on Pathology and Surgery of Certain Diseases of the Pancreas. A. W. Mayo Robson.

1. **Coagulation of the Blood in Albuminuria and Eclampsia.**—Douglas' article reports the results of the studies of the coagulability of the blood in pregnancy, puerperal albuminuria and eclampsia; also in cases of healthy puerperæ, healthy pregnant women and healthy non-parous women. The methods are given in detail, the tests being made by blowing out the blood in a series of tubes within a certain period after filling, noting the time when it is impossible to completely free the tube from blood showing that coagulation has commenced. He finds that the average, shortest and longest coagulation time in all the different classes examined in between three and four hundred observations were very close to each other. There is nothing to support the theory of increased coagulability in this special class of cases, only that in pregnant albuminuria there is a little shortening of time. Douglas concludes from the observations that there is little difference in the coagulation time in healthy pregnant and puerperal women or in eclampsia before and after delivery, and that there is nothing—so far as the study of the coagulation of the blood goes—to support the view that the thrombi found in certain organs in fatal cases of eclampsia are due to increased coagulation.

2. **The Site of Impregnation.**—Two cases are reported by Cripps and Williamson which seem to throw some light on the question of the site of impregnation. In one tubal gestation occurred after complete removal of the ovary on the same side. The authors think that it is improbable that any portion of the oöphoron was left in the operation for dermoid cyst which had been performed and reject as a probability the existence of a third or accessory ovary on that side. Cases of such have been reported, but few have stood the test of examination. Where pregnancy has occurred after a double ovariotomy it has been demonstrated in some cases that portions of the organ were left or the author's description of the operation indicates the impossibility of absolute certainty of the removal of the whole organ. In the second case there was a pregnancy after resection of both tubes. In the first patient there was little doubt but that it was a case of what may be called an external migration of the ovum, but in what part of the course the impregnation occurred can not be said, possibly, as suggested by Sippel, it was in the abdominal cavity. It is difficult to understand the course of the pregnancy in the second case after the removal of a portion of the tube. It can hardly be that the severed ends were ultimately united and the canal again patent, but it is possible that a process of absorption may have occurred in the walls of the tube which were in contact with one another, ultimately leading to the formation of a fistula between the two portions and establishing the continuity of the canal.

3. **Ventrofixation of the Uterus.**—Sinclair criticises the various processes of supporting the retroverted uterus, rejecting absolutely Schultze's method and considering Schucking's operation as a timid and dangerous one. Alexander's operation with its modifications has a value in certain cases, but the operation which appears to him the best for the treatment of chronic ventrofixation is the one suggested by Olshausen in 1886. The tests which such an operation should stand appear to be: 1. That it should be devoid of danger with ordinary care; 2, must be easy to perform and the operator know that he can finish it with an absolute certainty; 3, must relieve the symptom; 4, must produce no new ones; 5, must leave the patient free from danger and in a condition for active exertion; 6, it must stand the strain of pregnancy, parturition and the puerperium as if it had never been done; 7, the uterus must afterwards continue to maintain the position it was placed in. To obtain the desired results he says the fundus uteri and the round ligaments must be strictly safeguarded and another important point is to effect complete and permanent adhesion of a sufficient area of the anterior surface of the uterus to the abdominal wall. Kelly's method is criticised, and the details of the operation as performed by Sinclair are given as follows:

> In performing the operation of ventrofixation I have discarded all suture material except catgut and the finest silk thread which can be conveniently manipulated. At first I used to try to close completely the vesico-uterine fold, but now for years I have introduced for this purpose only two catgut sutures, one at each side, well below the lowest point of the abdominal wound, while the uterus is firmly pulled upward by means of an ordinary volsella inserted in the center of the fundus and manipulated by an assistant. This is *quite sufficient practically* to close the fold without interfering with the distension of the bladder, and it is more of a preventive to any possible insinuation of intestine than shortening of the round ligaments, to the extent practiced by most operators, can be. The next step is *to suture the peritoneum* at the edge of the wound on each side. The fine silk sutures are introduced from the outside surface of the parietal *peritoneum*, passed through the peritoneum, and after taking a good hold of the uterus low down and near its margin, they are brought back through the peritoneum and firmly tied. The knot is thus always extraperitoneal. Two of such sutures are, as a rule, introduced on each side. The same process is now continued, with the addition that the sutures include the fascia as well as the peritoneum on each side. *The* transverse sutures are next introduced. These are two or three in number, consist of fine silk, and include fascia and peritoneum at the sides, and each takes a fairly extensive hold of the anterior surface of the uterus. The highest of the sutures is placed about halfway *up from the* isthmus to the fundus. In complicated cases, and when the prospect of pregnancy is very remote, the sutures have been placed occasionally a little higher, though not often. All the sutures that penetrate to any part of the uterine tissue are buried sutures *at the finish*; or, *if* any suture includes skin as well, it is never left for more than three days, usually only forty-eight hours. There must never be suppuration in the tract of this suture. The highest transverse suture should always be buried. The abdominal wound is closed in the usual way, and it is an advantage to suture separately the edges of the fascia with catgut. The last step in every case is the introduction of a glycerin-pad pessary into the vagina to press forward and support the uterus during the formation of adhesions. The patients are kept in bed for a month or six weeks, and they are advised to lead invalid lives for several months.

There is hardly ever, he says, the slightest reaction in the simple cases, and the operation has stood the tests of efficacy given above in nearly one hundred patients. A considerable proportion of the patients have borne one or more children since the operation.

4. **A Warning Sign During Labor.**—The sign here described by Daniel is a sudden, spasmodic, diaphragmatic contraction from an attempt at respiration, while the child is still unborn; is usually communicated to the head of the child, through it to the forceps if these happen to be embracing the head. He thinks the movement is characteristic enough to be always recognized. It is a sort of double or duplicated movement repeated in quick succession. The main indication for this condition is to deliver the child as quickly as possible, even at the risk of a moderate amount of perineal rupture.

The Lancet, London.

March 26.

9 *Pathology and Surgery of Certain Diseases of the Pancreas. A. W. Mayo Robson.
10 *Treatment with Antituberculous Serum. Alexander Marmorek.
11 *Intravesical Separation of the Urines Coming from the Two *Ureters as an Aid to Diagnosis* in Surgical Diseases of the Kidneys. R. A. Bickersteth.
12 Training of the Feeble-minded. Francis Warner.
13 Two Cases of Hypertrophied Breasts in the Male (Gynaecomastia). A. Webb Jones and J. B. Christopherson.
14 Case of Acute Yellow Atrophy of the Liver. John Edwards and Maurice H. Smith.
15 Case of Hysterectomy for Cancer of the Uterus Coexisting with Pregnancy. Ian MacDonald and W. A. Mackay.
16 Hyperchlorhydria. Walter Broadbent.
17 Case of Large Uterine Fibromyoma Removed from a Patient Postmortem. Alfred Brown.

9. *Pancreatic Disease.—Robson's second* lecture commences with a classification and description of the etiology and anatomy of the pancreas as explaining the etiologic factors and the symptoms of acute, subacute and chronic pancreatitis, together with cystic and hemorrhagic conditions. He recognizes simple catarrh of the pancreas as a species of disorder as much as catarrhal jaundice. As regards the diagnosis he quotes Fitz' rule with approval: "Acute pancreatitis is to be suspected when a previously healthy person or a sufferer from occasional attacks of indigestion is suddenly seized with violent pain in the epigastrium, followed by vomiting, collapse, and in the course of twenty-four hours, by circumscribed epigastric swelling, tympanitic or resistant, with slight rise of temperature." In case of laparotomy fat necrosis is almost pathognomonic. The urinary tests for pancreatic crystals should not be neglected as a positive reaction has been obtained in all cases of acute pancreatitis in which it has been employed. As regards treatment, pain at the onset usually requires analgesics and shock may call for stimulants which may have to be given by enema. The early evacuation of septic material is important. Early exploration from the front, through the

middle line above the umbilicus or from behind through the left costovertebral angle is indicated to relieve the tension, secure drainage, evacuate septic material and arrest hemorrhage. The after-treatment is usually the combating of shock and keeping up the strength until the *malcrics morbi* can be thrown off. An exploratory operation would help the diagnosis in revealing a fat necrosis if it exists. Robson has operated in 4 cases of acute pancreatitis, with 2 recoveries. In 2 cases in which operation was refused death occurred in one patient at the end of the third day, and in the other at the end of a week of illness the patient succumbing with great suffering. There is no hard and fast rule between subacute and acute pancreatitis. The slower onset, longer course and more hopeful outlook indicate the propriety of the division. There is no reason in subacute cases why surgical treatment should not be attempted in the early stage in many cases. Robson has had 8 cases of abscess of the pancreas under his care; 6 were operated on and recovery took place in 5, though the relief was only temporary in 2. In the eighth case, not operated on, the abscess burst into the bowel and discharged. He also found 7 other operations reported with 3 deaths, making a total of 5 deaths in the 14 operations. Chronic pancreatitis is an interstitial change leading to the formation of fibrous tissue. It may be interlobular, exerting pressure on, and atrophy of, the true glandular substance; or interacinar, in which the tissue invades the islands of Langerhans, interfering with the metabolic function and producing glycosuria. In interstitial pancreatitis the pancreas is uniformly swollen, the harder lobules have the feeling of being mapped out and differentiated, very different from the feeling of the healthy gland and also varying from the hard nodular character presented by cancer of the head or body of the pancreas. The treatment is first to aim at the cause, such as gallstones, pancreatic calculus, duodenal catarrh, etc. But when the medical treatment has had a fair trial—not too long continued—and a condition of jaundice and loss of weight continue with signs of failure of the pancreatic digestion and metabolism appear, surgical treatment should be carefully considered. The obstruction should be removed and drainage established in the bile ducts. The author thinks that the operation sometimes arrests the process of disorganization, though it does not cure the lesions that have already been produced. He finishes his lecture by giving the statistics of operations which show the small mortality in his own cases of 3.9 per cent. and in others of 12.9 per cent.

10. **Antituberculosis Serum.**—Marmorek explains his method and the results which he claims. He first tried his method on the severer class of cases, and in some had brilliant results. He finds that the duration of the tuberculosis has much to do with the results of the serum treatment. In the very severe cases of long standing with large cavities, etc., the prognosis is unfavorable as far as the serum is concerned. Marmorek reviews the effects of the serum on fever, infiltration, dyspnea, expectoration, hemoptysis and other symptoms. Surgical cases he considered as equivalent to the slighter lung cases, for the lung is a tissue that has a less tendency to repair than other parts, and while his experience has not been so great for surgical cases, he claims that even the severe ones, such at Pott's disease and hip-joint tuberculosis may be cured by the exclusive use of the serum. The tolerance to the serum with his method he thinks is absolute. The injections seem to agree more and more with the patient as they are continued. As a general thing, the dose should be adapted to the individual constitution and the state of the disease. A series of daily doses during four or five days agrees well with the patient, especially if between each two series there is an interval of three or four days. After two or three series of injections it is well to discontinue them for a week or a fortnight. For the rather chronic cases the dose of Marmorek's serum is ordinarily 5 c.c., while in the acute cases as much as from 20 to 30 c.c. may be used daily during the week. Even children bear this well. The reaction takes the form generally of the well-known serum erythemas which disappear in two or three days and discommodes the patients very little. The results of his treatment, he claims, are at least satisfactory.

11. **Urinary Segregation.**—Bickersteth's article reviews the history of attempts at urinary segregation, speaking especially in favor of Luys' method in which a catheter of a special form is introduced into the bladder, fitting the lower portion with its curve, and then by the use of a chain retractor a rubber membrane is drawn out, quickly dividing the organ into two different portions, thus enabling the separation of the urine from the two kidneys. The tests of renal efficacy which he mentions are the estimation of urea with Little's ureometer, cryoscopy, which he considers is of much value in certain cases, and the methylene blue test. He thinks that our power of accurate diagnosis in certain diseases of the kidney has been very greatly advanced by this method. In the histories of the various methods of urinary segregation he mentions Harris' segregator as the first practical appliance, but objects to it on account of its causing the patient pain.

Journal of Tropical Medicine, London.

March 15.

18 Cold Weather Mosquito Notes from India—Malaria in Umritzar and Its Causes. (Continued.) G. M. Giles.
19 Yaws: Its Introduction Into Anguilla in 1902. I. Numa Rat.
20 Elucidation of Sleeping Sickness. (Continued.) Louis Sambon.

Australasian Medical Gazette, Sydney.

February 20.

21 First Series of 100 Abdominal Sections for Pelvi-abdominal Disease. Fourness Barrington.
22 Infant Mortality and Infant Feeding. William S. Byrne.
23 Indicanuria. George E. Rennie.
24 Value of Antistreptococcus Serum in Treatment of Severe Puerperal Septicemia. Richard Jones.
25 Lithotrity and the Bottini Operation at the One Sitting. H. C. Hinder.
26 Treatment of Hemoptysis. Francis Hare.
27 Some Curiosities of Terminology. F. Guy Griffiths.

Intercolonial Medical Journal of Australasia, Melbourne.

February 20.

28 Diagnosis of Perforated Gastric Ulcer. W. R. Boyd.
29 Surgical Treatment of Perforated Gastric Ulcer. W. Moore.
30 Pathology of Gastric Ulcer. Basil Killington.
31 Perforating Typhoid Ulcer, Treated by Laparotomy. A. V. M. Anderson.
31½ Diet in Typhoid Fever. E. Ken Herrings.

Bulletin de l'Académie de Médecine, Paris.

32 (LXVIII, No. 11.) Recherches sur la structure de la substance fibrillaire des cellules nerveuses. Marinesco. Abstract.
33 *Hygiène de l'enfance. Morel de Villiers.
34 *Fractures du radius dues au retour de la manivelle d'automobile. Ses variétés. Son traitement. Manière de la prévenir. Lucas-Championnière.

33. **Hygiene of Infancy.**—Pinard reviews the regulations decreed by the mayor of Villiers-le-Duc in regard to the hygiene of infancy. The mayor is a native of the small place and a physician, and his regulations are not all legally enacted, but are more in the nature of advice which his position renders authoritative. The mortality has been reduced to zero. Every child born in the community during the last ten years is alive and well to-day. The mortality had been 20 to 30.8 per cent. of the births during the previous decades for a century with the exception of a single decade, during which the present mayor's father—likewise a physician—had been the incumbent and devoted much attention to infantile hygiene. The regulations include one to the effect that every needy pregnant woman, married or not, must inform the mayor of her condition before the seventh month and state the name of the midwife whom she wishes to have attend her. The midwife is then sent by the mayor to examine the woman, to ascertain that there is no albuminuria, no fetal or maternal dystocia nor vicious presentation. She is paid $1 from the public funds for each visit. If the midwife finds anything abnormal the mayor is notified and he sends a physician selected by the pregnant woman, to take charge of the case. Every parturient assisted by the community receives 20 cents a day during ten days after the confinement if she remains in bed. This amount is paid to her at the end of the ten days. If she gets up before this limit she forfeits this sum. Other regulations specify points in regard to the feeding, fortnightly weighing of the infant, etc., and one promises a reward of 40 cents a month which is paid to every woman who has brought up a child to

the age of one year in good condition, breast or bottle fed. This sum is paid to her at that time, computed for every month during the year that the infant has been in her charge.

34. **Fractures of the Radius from Automobile Cranks.**—In starting an automobile the chauffeur pushes the crank until the motor starts to work, when he then lets go and the crank returns automatically to its place. But sometimes the gas lights prematurely and the small explosion drives the crank back unexpectedly. If the chauffeur has been cautious enough to take away his hand no harm is done, but if the returning crank pulls his hand or hits his wrist it is liable to do considerable injury. Walther has observed a case in which the wrist was literally torn out and months elapsed before the injury had healed. Lucas-Championnière has observed a number of instances of fracture of the radius from this cause. In 2 subjects the crank did not hit the wrist, but the hand, still holding the crank, was thrown backward with great violence. The mechanism of this fracture is the same as when we take the hand of a cadaver and break the bones by turning the hand abruptly backward. He describes the various forms of these fractures and their mechanism. In the above cases it was a "tearing out" while a "pushing in" causes more deformity. In these cases under discussion there is fracture but no deformity. There is no necessity for reduction; the parts can be easily held in place, without immobilization or vigorous compression. The parts heal finely and promptly under mobilization and massage applied from the first. In other cases the chauffeur has withdrawn his hand, but the crank hits his forearm and fractures the radius by direct impact. The left arm might be the injured one in this case, while the "tearing out" fracture can occur only in the right arm. The localization of the pain, crepitation, and impossibility of supination and pronation are characteristic for this fracture by impact. Sprains are frequent and in one case both bones in the leg were fractured as the subject was standing too near the crank. The fracture may occur likewise by impact of the crank on the "heel of the hand," and also by "tearing out" if the chauffeur attempts to restrain the movement of the flying crank. The swelling of the tendon sheaths and of the joint is the most prominent symptom, and no attempts at reduction should be made, while the dressings should be as simple as possible without fixation. The parts heal rapidly. The chauffeur may be able to steer the automobile after the accident, but this does not disprove the fracture, which may be readily established by radiography. He adds that automobilists may accept this form of fracture and regard it with as little concern as jockeys and bicyclists have learned to regard fracture of the clavicle, a professional injury which does not prevent their continuing in the race. Chauffeurs should be warned not to hold the crank too firmly, although the grasp of the crank may be involuntary in nervous persons and prevent the rapid withdrawal of the hand. Experienced chauffeurs state that the accident sometimes occurs from imprudence in regard to the management of the motor before starting the machine.

Semaine Médicale, Paris.

35 (XXIV, No. 11.) *Thyroid Grafts in Man. H. Cristiani (Geneva).—La greffe thyroïdienne chez l'homme.

35. **Grafts of Thyroid Tissue.**—Cristiani has long been experimenting along this line and published works on the subject in 1895. His research on animals showed that the graft must be homologous, the transplanted tissue must be normal and alive, the grafts very small and numerous, and transplanted into regions well supplied with blood. In this, his latest communication, he describes 3 clinical cases in which he tried thyroid grafting. The first subject was a young woman who required operation on the neck for a non-thyroid affection. Her thyroid gland was normal and scraps from it were implanted in her own back, between the clavicles, and in a myxedematous boy of 12. The boy's thyroid gland had been extirpated and he was grafted with thyroid tissue from the first case, from a woman of 34 affected with goiter, and also with scraps of his own thyroid gland. The woman of 34 was grafted with scraps of her own thyroid, which was but slightly altered, and with scraps from the thyroid of the boy. There were thus six different kinds of grafts: 1, normal thyroid tissue transplanted into a normal subject; 2, much altered thyroid tissue grafted on an apparently normal subject; 3, slightly altered tissue in a normal subject; 4, normal thyroid tissue in a distinctly pathologic organism; 5, manifestly altered thyroid tissue in a pathologic organism, and 6, slightly altered thyroid tissue in a decidedly pathologic organism. Portions of the transplanted scraps were excised from two to six months later. The findings demonstrated that it is possible to graft human subjects with thyroid tissue and thus obtain a permanent neothyroid organ, the same as is possible with animals. The results from the anatomic point of view are excellent when normal thyroid tissue is used. They are still positive when only slightly altered thyroid tissue is grafted, but a distinctly pathologic tissue undergoes degeneration. The technic which he has found most advantageous is to cut up the thyroid tissue into very thin slices with a sharp knife without crushing or impairing its vitality in any way. These scraps are then floated in physiologic salt solution and injected with a syringe through a trocar subcutaneously into the subject. He has found that thyroid tissue from the rat or rabbit thus prepared would keep for an hour without compromising its vitality, while it kept only ten seconds exposed dry to the air. He thinks that by this simple technic it is possible to graft a subject with thyroid tissue as a means of relieving disturbances due to the missing thyroid function, or as a preventive measure against cachexia strumipriva after extirpation of the thyroid gland. In spontaneous myxedematous hypothyroidia the grafts are liable to persist and develop if the tissue employed is not too much altered. His experiments further establish that when the subject is suffering from almost total suppression of the thyroid function the demands on the transplanted thyroid tissue are so excessive that the graft becomes degenerated from hyperfunction. On the other hand, when the subject already has a normally functioning thyroid gland the graft dies from disuse. The best results are attained when moderate functional demands are made on the graft, as in partially thyroidectomized animals. The grafts are much more successful and display remarkable vitality with a tendency to hypertrophy under these conditions.

Berliner klinische Wochenschrift.

36 (XLI, No. 11.) *Zur v. Behring'schen Schwindsuchtsentstehung (origin of phthisis). C. Spengler (Davos).
37 Tabes, Aortenaneurysma und Syphilis. H. Ruge. Statistical.
38 Minimum Requirements for Milk for Infants. C. S. Engel (Berlin).—Welches sind die geringsten Anforderungen die an eine Säuglingsmilch zu stellen sund?
39 *Zur Diagnose und Behandlung besonders der cardialen Form der Insomnie. L. Feilchenfeld.

36. **Origin of Tuberculosis.**—Spengler's protest against von Behring's views in regard to the origin of tuberculosis is based on numerous facts, among them his constant findings in cadavers of tuberculous children that the intestines are free from foci and bacilli, and that the primary localization is invariably in the bronchial glands. The bronchial glands were always found tuberculous in the cadavers of children who had succumbed to tuberculous meningitis. These facts speak for inhalation as the mode of infection. He believes that the predisposition to tuberculosis, the "phthisic habitus," is in reality merely the indication of an already existing, closed tuberculous focus somewhere in the body. The effect has been mistaken for the cause, as often happens, but an injection of tuberculin will clear up matters. Every human being, he thinks, who has reached the age of 30 has offered the tubercle bacillus one or more opportunities to settle and develop one or more local foci. A tuberculized subject, however, is far from being a phthisic. A certain proportion of the subjects thus infected become phthisic, others spontaneously recover and in the rest the affection remains localized and latent, although it may flare up later.

39. **Diagnosis and Treatment of Cardial Form of Sleeplessness.**—The heart may be regarded as the principal factor in that form of insomnia in which the subject goes to sleep naturally, but wakes up after an hour or two, suddenly, with a feeling of distress, usually palpitations and slight oppression in the chest. He tosses for hours in bed thereafter with no relief in sleep

until nearly morning, when he falls asleep again. Feilchenfeld ascribes this form of insomnia to a weakness of the heart muscle. The mild forms of muscular weakness are first revealed by this sleeplessness. The subject goes to sleep more readily when he lies on his left side, but wakes sooner. Examination of such persons has shown that after reclining long on the left side the apex beat is displaced to the left, almost into the axilla, and broadened, the pulse small and rapid, and symptoms of dyspnea are observed. The trouble is due to passive interference with the circulation as the subject reclines on his left side. This causes transient dilatation of the heart, and this in turn the symptoms experienced. The valves may be displaced also and this entails the symptoms of disturbed compensation, the restless sleep and premature awakening. He advances other theories to account for the symptoms observed, but all point clearly to the heart, and treatment should be directed to this organ. The subject is usually tired, predisposing to sleep, but lacking the full amount of fatigue necessary to induce sound sleep. He has 50 or 75 per cent. of the amount of fatigue needed, as it were, and treatment should aim to supply the missing 50 or 25 per cent. This is realized by incredibly small amounts of a narcotic. He has been very successful in this cardial form of insomnia with a combination of minute doses of digitalis and morphin: .015 gm., digit pulv. and morphin .0025 gm., given just before retiring. When the irritation proceeds from the intestines he finds it useful to administer sulfonal in .25 gm. doses two or three times during the afternoon. The smallest doses should always be tried first before resorting to larger ones. and sometimes they prove effectual when the larger doses fail.

Centralblatt f. Chirurgie, Leipsic.

40 (XXXI, No. 10.) *Ueber das freie seröse Exsudat des Peritoneum als Fruh-Symptom einer Perforations-Peritonitis. C. S. Haegler (Basle).
41 Perforation of Stone-Containing Gall Bladder. Thiel.—Perforation der steinhaltigen Gallenblase in die freie Bauchhöhle. Operation. Heilung.
42 Steinhaltige Gallenblase als Bruchinhalt (gall bladder in hernia). Ibid.
43 (No. 11.) *Silver Wire Suture of Bones. H. Grisson (Hamburg).—Zur Technik der Knockhennaht mit Silberdraht.
44 Die Behandlung der Frakturen am unteren Femur-Ende nach Bardenheuer. R. Graessner (Cologne).
45 Zur Technik der Paraffin-Injektionen. A. E. Stein (Wiesbaden).

40. Early Differentiation of Severer Cases of Appendicitis.—The Journal in abstract No. 90, page 686, mentioned Moszkowicz' announcement in regard to the value of a free serous exudate in the peritoneum as an early sign of the severer form of appendicitis, thus enabling the grave cases to be differentiated early, before serious symptoms have developed. Haegler here describes the results of experimental research which corroborate his statements. The serous effusion occurs in every case, but its quantity is proportional to the amount and the virulence of the germs or their toxins or of both. The peritoneum reacts to every irritation with a serous effusion proportionate to the intensity of the irritation. The large extent of effusing surface causes the accumulation of large amounts of fluid, but absorption keeps pace with it and compensates it under ordinary circumstances. In his experiments on animals he found that injection of cultures or toxins of the intestinal bacteria had the greatest irritative action, especially the anaërobic varieties, only equaled by that of the extremely virulent pus germs. This free serous or hemorrhagic effusion may be regarded as a protecting device against the toxins. If adhesions are not thrown up at once the contact of the toxins is followed by the effusion of a fluid to dilute and render them harmless. In local inflammatory affections of the intestinal wall, free effusion in the peritoneal cavity may, therefore, be ranked as an unfavorable sign. It shows that there is no tendency to wall off the irritating agents and that large amounts of very virulent toxins and possibly of the germs themselves, have irrupted into the open abdominal cavity or are continually finding their way into it.

43. Silver Wire Suture of Bones.—Grisson remarks that almost any method of suturing the bones with silver wire answers its purpose in case there is no suppuration. If there is suppuration it is sometimes necessary to remove the wire, and for this reason he recommends the technic which he illustrates, as with it the wire can be untied and withdrawn with ease. It is passed through the bone stumps as usual, forming a U. There is a knot in the right end, and this knot is drawn close against the bone. The left end is then brought to the right end as it emerges from the bone, and is passed around the right end, close to the bone, below the knot, after which its loose end is drawn down with forceps to form a loop underneath its horizontal portion. Both wires thus emerge through the wounds at the same point, and by pulling on the unknotted end it becomes untied and the wire can then be withdrawn by pulling on the knotted end. The technic is merely that of the ordinary sailor's knot with which rowboats are fastened.

Centralblatt f. Gynäkologie, Leipsic.

46 (XXVIII, No. 10.) *Patient's Consent. R. Chrobak.—Einwilligung der Kranken zu ärztlichen Eingriffen.
47 Eklampsie und vaginale Sectio cesarea. F. Ahlfeld.
48 Zur Aetiologie des Flatus vaginalis (Garrulitas vulvæ). F. J. Taussig (St. Louis).
49 (No. 11.) *Manuelle Placenta-Lösung ohne Gummihandschuhe (without gloves). F. Ahlfeld.
50 Bilateral Implantation of Ureters in Bladder. Krönig (Jena).—Doppelseitige Uretereinpflanzung in die Blase.

46. Consent to Operations.—Chrobak comments on the lessening degree of confidence in the physician and the increasing tendency to hold him responsible for failures to cure. He thinks that the matter of self-protection of physicians and surgeons in this respect should be brought up for discussion at some general congress. He makes a practice of exacting from every patient a written consent to his intervention. The chart for each hospital patient contains a line to the effect: "I herewith declare my consent to the operation and every intervention which may be deemed necessary during it." This line is written or signed by the patient as a routine procedure, and as every one does it, those facing important operations are not terrified by any exception being made in their case. He has never had one refuse to sign. He always obtains the consent of the husband likewise whenever practicable, as he still shudders at remembrances of cases in which the husband lost his wife without any intimation that she was to be operated on or was in danger of any kind.

49. Manual Detachment of Placenta Without Gloves.—Ahlfeld mentions that manual detachment of the placenta has been done fifty-three times in his experience of 6,800 births to 1904. No gloves were used. Five of these 53 women died, 2 from hemorrhage and the others from pre-existing lesions. In not a single instance could the manual intervention be regarded as a factor in the mortality. As his mortality was thus zero, although gloves were not used, the similar lack of mortality in cases in which gloves were used can not be cited as an argument in favor of gloves.

Münchener medicinische Wochenschrift, Munich.

51 (LI, No. 11.) *Studien über Ausflockungserscheinungen (phenomena of flaky precipitation). M. Neisser and U. Friedemann.
52 *Ueber Agglutination von Typhus-Bacillen durch das Blut-Serum Ikterischer. Steinberg.
53 *Vorkommen von Typhus-Bacillen in den Feces und dem Urin von Typhus-Rekonvalescenten. Herbert.
54 Bedeutung der intrazellularen Glykogen-Reaktion der Leukozyten für die Lehre von der Misch-Infektion im Verlaufe der chronischen Lungen-Tuberkulose. G. Schröder.
55 *Origin of Tuberculosis. Cornet (Berlin).—Die Entstehung der Tub., mit bes. Berücksichtigung der v. Behring'sche Lehre.
56 Ueber Lymphangitis pulmonalis und deren Beziehung zur sogen. idiopathischen Empyema. W. A. Jurewitsch.
57 Striæ patellares nach Typhus. G. Fischer.
58 *Zur Behandlung der Gonorrhoe des Auges (of the eye). G. Hirsch.

51. Phenomena of Precipitation.—This communication issues from the Frankfurt Institute of Experimental Therapy, in charge of Professor Ehrlich. A number of new facts in regard to flaky precipitation are reported, among them the confirmation of the assumption that capillary electric phenomena are concerned in the phenomena of precipitation. In precipitation by the agency of salts, that ion of the salt is the determining factor which bears the opposite electric charge to the charge borne by the particles in suspension. The rôle of the precipitating cation of the salt may be assumed by an electropositive colloid. The latter has likewise a precipitating action on electronegative suspensions or colloids. Colloids in themselves unable to induce precipitation, acquire this property on addition of a small amount of the salt—not enough in itself to induce precipitation.

52. **Agglutination by Blood of Jaundiced Subjects.**—Steinberg refers to agglutination of typhoid bacilli and states that the blood serum of persons with intense icterus had no agglutinating power in his tests. If agglutination occurs in case of icterus it can not be due to the presence of the bile in the blood, but to the same factor that is causing the icterus.

53. **Typhoid Bacilli in Feces and Urine of Convalescents.**—Herbert describes an epidemic of 98 cases of typhoid in a public institution; 59 of the subjects were taken sick within five days. Infection was clearly traced to 2 cases of typhoid in the institution in the last week of July. One of these patients infected a woman employed to wash the salads and potatoes for the table. During her period of incubation she must have infected these articles of food, as 2 cases developed August 23 and 24, and on the 31st the explosion occurred with 59 cases. By the end of October the epidemic had entirely ceased. A special laboratory was fitted up to determine the presence of typhoid bacilli in the urine and stools of the convalescents. They were found in the urine in 18 per cent. of the total of 98 cases, but only three times in the feces, and in these 3 cases they were also in the urine. The findings were positive only in the first four weeks of convalescence. The bacilli were found from eight to twenty-seven days after defervescence, the average duration being about fifteen days. During the second month of convalescence, therefore, all the patients were free from bacilli with a single exception. This was a patient who suffered from diarrhea constantly during convalescence. The severer the disease the longer the bacilli lingered in the urine. They were always numerous when found at all.

55. **Origin of Tuberculosis.**—[The views advanced by von Behring recently in regard to the origin of tuberculosis have raised a storm of protest on all sides and the medical press is teeming with communications from investigators who have been raking over their material and statistics for data to refute his assertions.] Cornet cites the Prussian official statistics to show the constant progression of the number of cases from the third year upward to the maximum between 60 and 70. He adds that he has personally experimented on between 3,000 and 4,000 animals to determine the mode of infection with tubercle bacilli and allied points. In every instance the portal of entry itself shows signs of the infection or, in any event, the nearest adjacent glands. The exact mode of entrance of the infection can be determined for every individual case from the pathologic anatomic findings except when the general organism is completely involved. The statistics further show that tuberculosis is constantly decreasing in Prussia. The number of lives thus saved amounts to 370,000 since 1889, estimating the deaths that would have occurred if the previous average death rate from tuberculosis had been maintained.

58. **Treatment of Gonorrhea of the Eye.**—Hirsch reports the prompt cure of a threatening case of gonorrheal inflammation of one eye from autoinfection. He commends the technic followed as promising surpassing results for such cases. He made a single subconjunctival injection of a 1/500 solution of hydrargyrum oxycyanate to which a little acoin had been added. There was considerable irritative reaction, but the progress of the process was arrested and three days later the cure was completed by a repetition of the injection.

Correspondenz-Blatt f. Schweizer Aerzte, Basle.

Last indexed page 137.

59 (XXXIII, No. 24.) *Rationelle Psychotherapie. Dubois.
60 *Retention der Chloride und das salzige Sputum bei Pneumonie. W. Spirig.
61 (XXXIV, Nos. 1-2.) *Zur Früh-Diagnose und Früh-Kur der Lungen-Tuberkulose. C. Fischer.
62 *Sudden Death in Children. E. Feer (Basle).—Ueber plötzliche Todesfälle im Kindesalter, insb. über den "Ekzemtod."
63 (No. 3.) Vaginale oder abdominale Total-Exstirpation bei Uterus-Carcinoma. O. von Herff. (Commenced in No. 2.)
64 Kasuistischer Beitrag zur Chologen-Behandlung. P. Pfaehler. Results negative.
65 (No. 4.) Nourishment of Lens and Origin of Cataract. J. Pfister (Lucerne).—Die gegenwärtigen Kenntnisse der Linsenernährung und der Katarakt-Entstehung.
66 Deutung der Eigenschaften und Wirkungsweisen der Immunkörpern (immune bodies). H. Zangger. (Commenced in No. 3.)
67 (No. 5.) Ueber akute Leukämie. A. Osswald.
68 *Medical Prescribing of Alcohol. A. Fick. From society report.
69 (No. 6.) Important Injuries of Knee. C. Schüler, Schlatter and others.—Die obere Tibia-Epiphyse im Schatten der Röntgenstrahlen.
70 Zum gegenwärtigen Stand der Myopie-Operation. E. Wolfflin.
71 Successful Abortion of Furuncles with Superheated Air. N. Reich. Abstract.
72 *Nursing Bottle to Arrest Coughing. Rahn. Abstract.

59. **Principles of Psychotherapy.**—Dubois ascribes to "ankylosis of the brain" the failure of the majority of physicians now growing old in harness to profit by the aids afforded by psychotherapy. He urges on the younger generation the better exploitation of these measures, and protests against the assumption that they belong exclusively to the neurologists and psychiatrists. Psychoneuroses require psychotherapy, and to pay attention to any organ or system merely adds an imaginary organic cause and aggravates the condition. Abnormal physical conditions may exist, but it is better to disregard them until the psychic condition is restored to normal as the mental predisposition is the disease and the others are merely the inciting agent, which may safely be neglected until the psyche is working normally. They will then usually right themselves or will yield readily to treatment. He insists on the necessity of informing the patient that it is the psyche which is diseased and requires treatment. The entire structure of autosuggestion collapses like a card house when the psychoneurosis is cured. He mentions the case of a woman of 40 who had suffered from complete astasia-abasia for ten years with hysteric contractures, etc., dating from the birth of a child. Total hysterectomy had been done to relieve her, without effect; she had taken a number of Weir Mitchell courses, and had strychnin injections for a year, with electricity and massage treatment, but not a trace of improvement. When Dubois saw her she had long been bedridden, with nervous asthenopia, photophobia and constant chilliness. In his half-hour talk with her he succeeded in convincing her that there was no organic reason for her condition and that if she once made up her mind to get up and live like other people she could. In less than a week she was up and about and has been in perfect health since he impressed on her that all she had to do was to transform her idea that she was unable to do certain acts into the idea that she could do them, first clearly setting forth the arguments against the possibility that there was organic disease in the parts affected. Another patient had been treated during eleven years for neuralgia in the pelvis. The pains occurred at every attempt to walk and she had been compelled to live at home like an invalid. She was 35, the wife of a physician, and in blooming health. No indications of nervousness or hysteria could be found except a tendency to be depressed in the morning. He, therefore, explained to her that pain, like other sensations, is at bottom a mental impression. It may be the result of an idea as well as of a physical lesion. He saw her every day and constantly reiterated the necessity of controlling her psychic impressions and thus educate herself out of the idea of pain. Seven weeks of this exclusively psychic treatment—like water dropping on a stone—finally conquered, and there has been no recurrence of the pains during the several months since. In treating such patients the family must be drawn into the conspiracy to preach the necessity for a healthy stoicism and courageous bearing in all things, small and great. The physician to be successful in psychotherapy must be an optimist. The depressing views of the Schopenhauer or Nietzsche school of pessimists must be discarded if one would succeed in curing psychoneuroses. Paralyzing neurasthenia lurks in all the works of these and similar writers. The peace of mind which protects the health of body and psyche rests on a philosophy of life which, notwithstanding the difference in its origins, is common to both the Christian and the free-thinker. What we need is a healthy optimism which shows us life as it is and enables us to be brave and instill courage.

60 **Retention of Chlorids and Salty Sputa in Pneumonia**—Spirig recently encountered a pneumonia patient who complained that his sputa tasted salty. He was tested with other substances and detected a salty taste in them or not, in harmony with the findings by other persons The subjective salty taste was, therefore, an objective reality Spirig suggests that this salty taste of the sputum might be utilized as a means of detecting retention of chlorids in the system in pneumonia and other diseases

61 **Early Diagnosis of Tuberculosis**—Fischer writes from the Beauregard Sanatorium to impress on the profession the necessity of warning the public that the ravages of tuberculosis might be materially reduced if physicians were consulted earlier Any cough that lasts for more than four to six weeks and is accompanied by general depression, loss of weight, etc , should be regarded as a grave sign and medical aid should be sought without further delay He mentions the tenacity and persevering endurance of the Swiss character as a hindrance to this prophylactic measure, relating instances of men keeping doggedly at work for months without consulting any physician, while being rapidly undermined by a pulmonary affection which might have been cured if appropriate measures had been adopted in the beginning

62 **"Eczema Death"**—Feer's comprehensive study of sudden death in children, especially those under treatment for eczema of the scalp, unmistakably establishes a certain connection between the sudden fatality and the eczema He reports 8 such instances that have occurred at the Basle Children's Hospital, and summarizes 22 similar ones found in the literature Von Ranke has seen 16 cases of sudden death in the last ten years preceding 1902 There was no hyperplasia of the thymus in 5 (bronchitis in 3, anemia in 1 and eczema with sudden bronchopneumonia in 2) In 4 other children the thymus was enlarged and there were serious lesions elsewhere In 7 the thymus was enlarged, but there were no other appreciable complications except eczema in 6 He is convinced that there is a close connection between the sudden death and the eczema which Feer corroborates In the total 30 cases of sudden death on record, aside from the lymphatic apparatus, there was nothing to explain the fatality In the 13 cases with careful necropsy pronounced status lymphaticus was noted in more than three fourths, as also in a number of the others For these and other reasons which he enumerates Feer is inclined to regard infantile eczema as a manifestation of a dyscrasia, study of which would elucidate the problem of the status lymphaticus The sudden death of eczema babies usually occurred while the scalp affection was being treated Sometimes it was preceded by high fever, suggesting that the removal of the crusts or the therapeutic applications were responsible without the intervention of a drug intoxication The old dread of 'driving in" the eczema was at first ridiculed by the present generation of physicians, but their experience has compelled them to modify their views Pleurisy, bronchopneumonia or diarrhea have too often followed the cure of eczema of the scalp for the occurrence to be regarded as a mere coincidence With the spontaneous return of the eruption the other affections improved Feer has had no personal experience with this metastasis of eczema, as he calls it, but thinks that it is reasonable to assume its existence and that the sudden eczema deaths are due to metastasis in some vital organ, or at least to the diversion of the exudate with its absorbed or not eliminated toxic substances In some of the cases on record beginning bronchitis and foci in the lungs were found after the sudden death in apparent health He adds that most cases of asthmatic bronchitis in children affect those who were milk crust babies Adenoid vegetations and enlarged glands are also common in such children The dyspnea and cyanosis at the onset of a severe attack of bronchial asthma resemble very much the condition that ushers in the sudden death in the status lymphaticus Any one who has witnessed an "eczema death" is henceforth very cautious in treating a scalp affection He proceeds very gradually and uses the mildest local treatment directing his efforts to improve the general condition Jadassohn stated in the discussion which followed the reading of Feer's paper, that he had never seen a case of "eczema death ' and that he always strove to heal the eczema as promptly as possible, believing that it opened an entrance for infection Demme found tubercle bacilli under the crusts in one instance Hagenbach related a number of cases of sudden death in children, but the status lymphaticus does not explain them all

68 **Medical Prescribing of Alcohol**—Fick argues that all the effects observed from alcohol are in the nature of a paralyzing of the brain cells· The use of alcohol can therefore be depended on when a narcotic action is desired as a sedative, to promote the appetite and against the night sweats of phthisis He admits the efficacy of alcohol in these directions, but doubts the advisability of prescribing it, as the same results can be attained by other means It should be restricted to acute affections and to incurable cases, the latter including the aged The idea that alcohol "strengthens" is erroneous and should be combated There is no doubt that medical prescriptions are responsible for a certain, if small, share of the prevalent alcoholism Naegeli thinks that the paralysis of the vasomotors which follows the use of alcohol is a direct contraindication to employing it in acute infectious diseases, as one of the greatest dangers in this condition is the already existent vasomotor paralysis, which is only aggravated by the alcohol The statistics of the London Temperance Hospital do not show that the death rate is any higher in the absence of alcohol, but rather the reverse Fick never gives alcohol to any patient before or after an operation, and when possible he insists on its non use during the few weeks beforehand In summing up his views on alcohol he cited the famous report of the commission appointed by the English government to study the subject of opium in India Certain prominent physicians and government officials testified in favor of opium as a stimulant, euphoricum and benefit to society!

72 **Nursing Bottle to Arrest Coughing.**—The sipping of fluid will frequently arrest coughing, and Rahn recommends the use of an ordinary nursing bottle to hold the fluid when it is needed by a reclining subject The action of sucking the nipple tends to inhibit the coughing reflex Water, mineral water or any decoction may be used in the bottle to sip in small amounts at any time, night or day, without the necessity for rising or fear of spilling any of the fluid

Brazil-Medico, Rio de Janeiro

Last indexed XLI, page 1810

73 (XVII No 40) *Valor do dente de Hutchinson na heredo syphilis Moncorvo Filho
74 *Prophylaxia da febbre amarella (yellow fever) E Ribas (Concluded)
75 Injeccoes endovenosas de collargol D de Almeida From society report
76 (No 41) A voltaisaçao cutanea no tratamento dos aneurismas A Britto (Bahia)
77 (No 13) A spirillose das gallinhas (poultry disease) F Marchoux and A Salimbeni
78 (No 47) *Prophylaxia da febbre amarella P Pereira (Bahia) (Concluded)
79 (No 48) A febbre amarella Marcoux, Salimbeni and Simond Report of French Commission See page 983
80 (XVIII No 1) *Cold Packs in Broncho-pneumonia in Children J Pinto—O envolvimento frio do thorax no tratamento das broncho-pneumonias infantiles
81 As ideas de Behring sobre o contagio e a prophylaxia da tuberculose A Peixoto
82 (No 3) *A proposito da variola nas creanças F Figueira
83 *Caso notavel de fecundidade O Machado From society report
84 (No 4) *Da serum therapia no envenenamento ophidico Vital Brazil
85 Notas sobre hypohemia [illegible] aes
86 Estudo da uncinariose [illegible]
87 (Nos 6 7) *Novo signal [illegible] da tuberculose pulmonar A Simoes
88 (No 8) *O methodo brazileiro ou voltaisaçao positiva no tratamento dos aneurismas da aorta A de Freitas

73 **Hutchinson's Teeth in Inherited Syphilis**—Moncorvo observed typical malformation of the upper and lower incisors in 6 out of 8 cases, while in 2 the lesion was limited to atrophy of the upper incisors In one of the cases there was also a notch in a lower canine tooth

74 **Prophylaxis of Yellow Fever.**—Ribas concludes this detailed analysis of his experiences as director of the public health service at San Paulo with the statement that no epidemic ever occurred where the stegomyia was not prevalent He also mentions that the meteorological conditions affect the

development of an epidemic, not only by favoring the proliferation of the mosquitoes, but also the proliferation of the pathogenic micro-organism inside it.

78. **Prophylaxis of Yellow Fever.**—Pereira is professor of general medicine at Bahia, and argues to prove that yellow fever is an exotic infection in Brazil, and also that it may be transmitted by insects other than the stegomyia. Consequently, measures against the latter should be supplemented by disinfection of the dwelling and of contaminated objects. He urges compulsory disinfection of incoming ships with the Clayton apparatus as a means of preventing the importation of all kinds of pestilential and exotic affections as well as of yellow fever.

80. **Cold Compresses to the Thorax in Bronchopneumonia in Children.**—Pinto is an advocate of frequently renewed, cold, wet compresses applied to the thorax in this affection. The respiration becomes deeper and slower from the moment the cold is applied. They induce an extensive and salutary revulsion over the skin of the thorax, reducing the fever, regulating the pulse, soothing the nervous symptoms, agitation, insomnia, etc., and clearing out the organism by the extensive diuresis induced. He refrains from medication as a rule.

82. **Diazo Reaction in Smallpox in Children.**—Figueira found the diazo reaction positive in 24 children with smallpox, the ages ranging from 34 days to 20 years. It was found from the second day into convalescence, in both mild and severe forms, simple or complicated, with or without fever, and under various methods of treatment. Another child whose varicella was mistaken for smallpox was sent to the smallpox hospital and the absence of the diazo reaction was one of the points that cleared up the diagnosis. In measles he found the diazo contradictory, distinct in 2, but negative in 5. It was also absent in mumps.

83. **Remarkable Fecundity.**—Machado reports the case of a woman of 38, married seventeen years, who has had twenty-four children in eighteen pregnancies. The ninth delivery was an induced abortion about the fifth month, and five fetuses were expelled. This was followed by seven other abortions induced about the fourth or fifth month. The last delivery resulted in the birth of healthy twins. She is a tall woman, the thyroid gland slightly enlarged, the face somewhat asymmetrical, the glance restless, the pupils dilated. As a child she suffered from hysteria and later from ozena. Her husband died at 50. She is the only survivor of five children. Her mother was an epileptic.

84. **Serum Treatment of Snake Bite.**—The main points of Brazil's communication were mentioned in a report of the Brazilian Medical Congress in 1903. (See page 504 of Vol. XLI.)

87. **Early Sign of Pulmonary Tuberculosis.**—Simoes has encountered invariably in tuberculous subjects and never in others, a cutaneous reflex, which he describes as a rapid elevation of the skin—a lump forming when the thorax is percussed. The phenomenon is the more pronounced the farther advanced the disease, but is unmistakable at all stages. As a rule, he has found the right side most frequently affected in tuberculous men and the left in women. The sign is due, he thinks, to the extra irritability of the peripheral innervation of the thorax in these subjects, causing sudden contracture of the muscular fibers at the point percussed, the contracture lasting several seconds, and forcing the derma above them to bulge out. Sometimes the bulging is accompanied by a slight fibrillary wave running through the subjacent muscle. It differs from other reflexes noted by Ziemssen and others in that the wave runs across instead of lengthwise of the muscle fibers. He percusses with a cylindrical instrument of wood, aluminium or other metal, about 12 cm. long by 6 mm. in diameter, one end rounded and the other tapering, using the rounded end to percuss very sensitive subjects and the tapering end for others. The front or the back of the thorax is tapped with this instrument, or even a common lapis stick. The reflex can be elicited almost anywhere over the thorax in advanced cases, but in the incipient stages it is most pronounced in the infraclavicular fossa below the clavicle.

88. **Electric Treatment of Aneurism.**—The method of treating aneurism of the thoracic aorta by local application of the galvanic current has been extensively exploited by the medical profession in Brazil, and all concur in extolling its superior efficacy. The physicians there proudly claim it as the "Brazilian" method, and it has now a long record of successes in their hands during the last two decades. Modesto Guimaraes was able to demonstrate with an artificial or phantom aneurism, made with blood vessels from the cadaver, that the application of the electricity actually did aid in the formation of a clot and obliteration of the sac, under conditions approximating the natural. The anode is impregnated with a 20 per cent. solution of potassium iodid, or, in the case of syphilitics, with mercuric iodid, to take advantage of the phenomena of cataphoresis. Absolute repose and a milk diet are enforced whenever practicable as important aids in the treatment, but the main point is the application of the galvanic current with large electrodes, the anode fully 8/11 or 11/16 cm., while the negative electrode measures 16/24. The positive pole is applied directly over the aneurism, the negative pole to the back, directly opposite the anode. The current is gradually increased to 30 milliamperes and applied for twenty minutes, after which it is gradually turned off again. The minimum is 20 milliamperes and ten minutes' application, the maximum 50 milliamperes and 30 minutes. The pain subsides almost at once. Nature is aided in the process of repair and improvement is evident in eight days to two months of these daily applications, lengthening the intervals to two days after the pains and the other symptoms have subsided. When a cure is impossible 20 to 60 applications are applied as a palliative measure, and are always beneficial. A complete cure requires about 120 to 150. The subsidence of the tumor can be followed with the eye or by radioscopy. Freitas does not make the applications as long as Britto, preferring 15 to 20 milliamperes for fifteen or twenty minutes only. He describes 6 cases in detail, with the photograph of one patient. As a typical example we cite the case of a woman who had suffered for years from a dilatation of the aorta, in extreme anemia from multiple causes, with dyspnea at the slightest effort and exaggerated pulsation throughout the entire arterial system. She received 130 applications of the galvanic current as described, and during the three years since has been completely free from her previous disturbances. She has spent a season at an altitude of more than 3,000 feet, has passed through an exceptionally severe attack of la grippe, but her heart and vascular system have persisted in fine condition without sign of recurrence of her old troubles, while the local condition of the dilated artery is excellent. These facts demonstrate that she has been absolutely cured. (See also No. 76 above.)

Books Received.

Acknowledgment of all books received will be made in this column, and this will be deemed by us a full equivalent to those sending them. A selection from these volumes will be made for review, as dictated by their merits, or in the interests of our readers.

The Commoner Diseases of the Eye. How to Detect and How to Treat Them. For Students of Medicine. With 250 Illustrations, Many of Them Original, of Which 7 are Colored Plates. By Casey A. Wood, C.M., M.D., D.C.L., Professor of Clinical Ophthalmology in the University of Illinois, and Thomas A. Woodruff, M.D., C.M., L.R.C.P. Lond., Professor of Ophthalmology in the Post Graduate Medical School, Chicago. Cloth. Pp. 499. Price, $1.75. Chicago: G. P. Engelhard & Co. 1904.

Treatise on Diseases of the Skin, For the Use of Advanced Students and Practitioners. By Henry W. Stelwagon, M.D., Ph.D., Clinical Professor of Dermatology in the Jefferson Medical College. Third Edition. With 220 Illustrations in the Text, and 26 Full-page Lithographic and Half-tone Plates. Cloth. Pp. 1,115. Price, $6.00. Philadelphia, New York and London: W. B. Saunders & Co. 1904.

Twenty-Eight Annual Report of the Managers and Officers of the New Jersey State Hospital at Morris Plains. For the Year Ending Oct. 31, 1903. Paper. Pp. 122. Camden, N. J.: Sinnickson Chew & Sons Co. 1904.

Transactions of the Vermont State Medical Society for the Year 1903. Annual Meeting for 1904, at Rutland. October 13 and 14. Cloth. Pp. 298. Burlington: Free Press Association. 1903.

Ninth Biennial Report of North Carolina Board of Health, 1901-1902. Paper. Pp. 148. Raleigh: E. M. Uzzell & Co. 1902.

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Original Articles.

THE SURGICAL TREATMENT OF GOITER.[*]

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The statistics of the continental surgeons in reference to goiter has greatly added to the wholesome respect we have held as to their surgical skill. There the various operative methods of affording relief have been advanced to a high state of perfection. Especially is this true in localities in which goiter is endemic, where many surgeons have done hundreds, a few over a thousand, and the great surgeon, Kocher, is well along now in his third thousand of operations for goiter. Their mortality is low, and becomes less with increasing experience. In this country, where the disease is comparatively rare, the greater proportion of operations have been from necessity, and too often were delayed until a fatal result was a not infrequent occurrence. Few operators have had a large experience, and the mortality has been somewhat higher, taken as a whole. than that of continental surgeons; but possibly this difference is not so great for the cases of the same average severity when operated upon.

There are a few points in the development, location, structure and function of the thyroid gland which are so directly associated with the disease and symptoms produced that a brief review of the anatomy of the organ will be of advantage. The thyroid gland consists of three parts—two lateral lobes and an isthmus. Each lateral lobe is about two inches long and pointed at the upper end. The isthmus unites their lower inner portions across the trachea, covering from the first to the fourth tracheal rings. The whole gland weighs from one to one and one-half ounces. In the development of the thyroid gland, the inversion takes place from the pharynx, the superior inversion being at the back of the tongue, and the remains of the nearly closed duct is known as the foramen cecum, while the remainder of the duct usually becomes atrophied to a cord extending through the tongue toward the hyoid bone. In 43 per cent. of cases a so-called middle or pyramidal lobe is present, extending from the upper border of the isthmus toward the hyoid bone. It is in these lines of inversion that the accessory thyroids are more often found. a condition which has been thoroughly described by Dr. Bernays. The gland consists of a number of alveoli of small size and various shapes. It is covered by a delicate connective tissue capsule, in and beneath which, upon the surface of the gland, is the venous plexus. Penetrating the gland in all directions from the capsule are delicate connective tissue layers which form and support the alveoli, and in which are located the lymphatic vessels of the gland. The superior thyroid artery from the external carotid supplies the upper horn, entering the capsule at its apex and anastomosing freely with the vessels of the opposite side and the inferior thyroid artery below. The latter vessel arises from the thyroid axis, and enters the gland on its inner inferior surface next the trachea at a point called the hilus. At this point the vessel and gland are in close relation to the recurrent laryngeal nerve, and it is in the ligation of this artery next to the gland that this nerve is so frequently injured. There is occasionally another artery found called the thyroidima; arising from the aorta or innominate artery, it ascends upon the trachea and enters the isthmus. The veins are the superior and lateral, which enter the internal jugular, and the inferior, which is usually quite large, arising from the venous plexus of the capsule, and from either side they usually unite to enter the left innominate vein.

In disease of the gland, the number of veins may be somewhat increased, but the location is nearly constant. The capsule is extremely thin, but behind it divides into two layers, one inclosing the gland. the other passing behind the pharynx and esophagus. A firm band of connective tissue is also attached on each side of the cricoid cartilage, and becomes blended with the capsule to act as a sling support. This peculiar formation of the capsule explains the dyspnea, from lateral pressure of the trachea, often complained of in enlargement, and also why even large tumors are firmly held to the trachea. In certain types of goiter this capsule becomes greatly thickened. Dysphagia may occasionally be present and at times dysphonia. The nerves are derived from the middle and inferior cervical ganglion of the sympathetic as well as the inferior and the external laryngeal nerves. The gland has no duct, but is well supplied with lymphatics, which Baber has shown are filled with the same semiviscid colloid secretion found in the alveoli of the gland. and it is probable that they act as ducts in carrying the secretion to the circulation by way of the tracheal and cervical glands. This theory of the lymphatic system acting as the carrier of secretion from the ductless glands to the circulation. aids in explaining the etiology of various tumors and retention cysts from their inactivity, as well as thyroidism from oversecretion and absorption. These lymph glands, as well as those of the mediastinum, are early involved in malignant disease of this organ. and contribute largely in rendering operations for the relief of such diseases only palliative or worse.

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[*] Read at the Thirteenth Annual Meeting of the Western Surgical and Gynecological Association, held at Denver. Dec. 28-29, 1903.

The function of the thyroid is a question still under discussion. We know that children born without a thyroid and those who early lose them by operation or atrophy develop a condition known as cretinism. That those in adult life who in any way lose the function of the gland develop myxedema. Tetany may also develop from arrested function—well-known conditions which it is unnecessary to describe at this time. We know that an excess of activity of the thyroid function develops a condition known as exophthalmic goiter, or Graves' diseases, or Basedow's disease. The symptoms of these are characterized by rapid pulse, goiter, protrusion of the eyeballs, retraction of the upper lid, muscle tremor and nervous symptoms. The main symptom is the tachycardia and muscle tremor, other symptoms and the prominence of any depending upon the patient and the stage of the disease. The various changes in the thyroid, aside from malignant, tubercular, syphilitic or hydatid diseases, are such as might be expected from its structure, namely, atrophy, hypertrophy, cysts, adenomas, fibroid or calcareous degeneration and parenchymatous enlargements. The more common form is the latter enlargement, which is the type of uniform tumor seen in young people. It appears at about the age of sexual activity, and is characterized by an increase in the size and contents of the alveoli. In these cases there is also an increase in the solid elements of the gland. This type of goiter frequently, and we may say usually, responds to medical treatment. In many instances the colloid material is so abundant and the alveoli so large in the long-standing parenchymatous goiters that they are called colloid cystic goiters, and it often occurs that several of the various types may be represented in one tumor.

The conditions which have rendered operation imperative have usually been dyspnea, from compression of the trachea or its displacement, and from retrosternal enlargements. Dysphonia and dysphagia have been important symptoms at times, and in many instances the weight and general nuisance of a large tumor as well as cosmetic reasons.

Acute infections often demand surgical intervention. More recently the symptoms of Graves' disease have placed exophthalmic goiter in this domain of surgery; whether properly or not is a matter still under discussion.

Riverdin, in an analysis of 3,408 cases, placed the mortality from total extirpation at 19 per cent.; from partial extirpation, at 3.5 per cent.; from intraglandular enucleation at 78/100 per cent.; from resection, at 6.6 per cent. Such statistics are but relative, however, as it is probable that the total extirpations were demanded for serious conditions and the intraglandular enucleations were presumably for the encapsulated adenomas. The deaths, when immediate, are from hemorrhage, air embolism, myocarditis, suffocation or the anesthetic. Later deaths are usually from pneumonia, from sepsis, tetany or myxedema.

Of the various methods of attacking thyroid enlargements, Mikulicz has developed the resection of a part of one or both lobes after ligating or compressing the arteries. Ostermayer crushes off a part of the gland and applies mass ligatures. Socin has developed the intraglandular enucleation. Kocher advanced the method of eventeration, or incision of cysts and shelling out their contents, and also the popularized common method of lateral extirpation in its capsule, dividing the isthmus and leaving a portion of the capsule at the side of the trachea to protect the recurrent laryngeal nerve, which he injured more or less in 7 per cent. of his first thousand cases. Paucet and Billroth made massive enucleation within the capsule.

Cysts have been treated by puncture, injection and drainage, but are now usually enucleated. Injections of various solutions into goiters are generally considered nearly as dangerous as radical operative measures, and curiously enough, are more employed by the internist than by the surgeon, who always doubts the true position of the point of an instrument as soon as it is out of sight.

The displacement of a goiter by open incision, allowing it to granulate in the open wound, or exothyropexy, is seldom practiced. Incision of the isthmus for tracheal compression is sometimes employed as a temporary measure, but as a rule the relief is slow to manifest itself and the symptoms early recur. Ligation of three or four of the thyroid arteries is nearly as serious an operation as the removal of part of the gland. These cases seem to be exposed to all the risks, both primary and secondary, as if the gland were attacked directly. The removal of a part of the cervical sympathetic ganglion for the relief of exophthalmic goiter, as advocated by Edwards and popularized by Janesco, has had a fair degree of success. It is barely possible that the destruction of the lymphatic ducts efferent from the thyroid may account for some of the improvement noted. This theory will also explain the favorable reports following the exposure of exophthalmic goiter to the *x*-ray.

During the past fifteen years we have had a large number of parenchymatous goiters, which have been successfully treated, usually by some combined internal and external method. In the same period one hundred and ten patients have been subjected to operation for the relief of some type of thyroid tumor. Of these, thirty-four were for exophthalmic goiter, with six deaths. Two were for carcinoma of the thyroid, with one death on the third day from sudden collapsing of the trachea. The other, whose trachea was involved, required the permanent use of a long canula tracheal tube until death occurred fourteen months later. One case was a large lingual thyroid; two cases presented enlargements of the pyramidal lobe only, and these tumors were apparently separate from the remainder of the gland. The other cases, numbering seventy-one, with one death from pneumonia on the eighth day, presented the various types of adenoma and colloid cystic goiters. In two cases there were large areas of calcareous degeneration. One case was a large cyst with sixteen ounces of fluid, and apparently involved the entire gland. Two colloid cystic goiters were very large, one measuring twenty-two, the other nineteen inches across the tumor from one side of the neck to the other, and resting upon the sternum. In three cases the entire gland was apparently removed, but as this operation was by the enucleation method we considered it probable that there was some active gland tissue within the capsule or an accessory gland present, as there were no symptoms developed which could be attributed to the loss of the gland.

We prefer the Kocher collar incision as giving the most exposure and causing the least scar. This incision crosses the gland in the line of the creases of the neck and extends on one or possibly both sides as far as the posterior border of the sternomastoid muscle. In special cases more space is gained by splitting the lower flap in the center down to the upper border of the sternum. The sterno-hyoid and thyroid muscles can at times be retracted sufficiently to deliver the tumor or portion of the gland to be removed; but if they add any difficulties to the operation we have no hesitation in cutting a part or all of them and reuniting them by suture during the later steps of the operation. There is often some difficulty in determining which is the true capsule, and the incision can be deepened into the tumor until gland tissue or tumor tissue is exposed; the hemorrhage is inconsiderable if the larger vessels are avoided. Inspection of the tumor after its free exposure will indicate the best method of procedure in the operative technic of its removal. If the capsule is thick and nearly the whole gland has disappeared into one rounded mass, we prefer the enucleation method of Socin. as in case of cysts they can be evacuated and the cyst wall removed, and if adenomas or large colloid cysts it is possible that enough gland material will be left to functionate should it be necessary to remove the whole mass. If, as is more often the case, the tumor upon exposure retains the general normal contour of the gland, we extirpate one lobe, usually the right, after the method of Kocher. In case of retrosternal enlargements it is delivered with this lobe if possible. The veins leaving the true capsule laterally are divided and the upper horn dislocated sufficiently to double ligate the superior thyroid artery and vein. The tumor is further dislocated and freed from below with dry gauze dissection until the inferior thyroid artery and veins can be ligated. The isthmus is now crushed with large forceps and ligated or closed by sutures after severing the tumor. If there is any difficulty in raising the lobe from the trachea and region of the recurrent laryngeal nerve, the capsule is incised under the lateral border and allowed to remain, the gland being cleansed from its surface. The wound is now closed by a subcuticular suture, and usually free drainage is employed by separate incision or by the vertical median incision above the sternum.

Exophthalmic goiters are extirpated in the same manner, using greater care in avoiding undue force or compression of the gland in its removal. Our usual rule is to give a hypodermic injection of one-sixth to one-fourth grain of morphia about twenty minutes before operation. as it quiets the general nervousness and aids anesthesia. Unless there is extreme dyspnea or extremely marked exophthalmic symptoms we prefer the drop method of ether anesthesia. In such cases we employ the cutaneous injection of cocain. This method is also used if we lack confidence in the anesthetist. The after-results have been perfect in colloid and adenomatous goiters, with the exception of one case of permanent hoarseness, and a few with this feature lasting but a short time. In operating for malignant disease we found the usual rule to hold good, that the operations were delayed, difficult, palliation short and mortality high.

The exophthalmic cases which recovered from the operation were all benefited within a period of three months,; about 50 per cent. became free from exophthalmic symptoms within from three to six months following the operation. In 25 per cent. the improvement was continuous during a year. In 25 per cent. the improvement was partial, the exophthalmus being slow to disappear. None were made worse who lived, and those in whom death occurred were the most severe types of Graves' disease, especially presenting tachycardia of from 130 to 150. Following the operations upon the thyroid gland, a condition of acute thyroidism is probable during the first twenty-four to forty-eight hours. To a great extent it depends upon the amount of traumatism in the operation. This condition is more noticeable in the exophthalmic cases. It is usually accompanied with from one to four degrees of temperature.

MORE LOCAL AND LESS GENERAL ANESTHESIA IN GYNECOLOGIC OPERATIONS.

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CHICAGO.

General anesthesia is of great value in diagnosing many intrapelvic and intra-abdominal conditions, especially in girls, nervous women and in those with tense or thick abdominal walls. Ether and chloroform are the drugs most frequently employed for this purpose. During recent years I have to a great extent discarded these, using nitrous oxid gas in preference, except in cases in which it is contraindicated. The great advantages of this anesthetic are its rapidity of action, safety and absence of after-sickness. The gas is administered through a Packard inhaler, air being inhaled with it.

In carrying out operative procedures I use nitrous oxid and ether, except where there is some contraindication. in the majority of cases. I have found the Packard inhaler very suitable for the administration. A mixture of nitrous oxid gas and air is first given, and as unconsciousness is developed, ether vapor is gradually forced into the inhaler by means of a rubber bulb attached to the bottle of ether. The nitrous oxid reservoir is then disconnected and a mixture of air and ether continued.

When chloroform is indicated the same inhaler is employed, air being allowed to enter more freely. When the mask of the inhaler does not fit a patient's face closely, anesthesia may not readily be induced, because an excessive amount of air is inhaled. Under these circumstances it is advisable to administer ether by means of an open-top pasteboard cone containing cotton; chloroform may be given by means of an Esmarch inhaler, the drug being carefully dropped on it from a small bottle.

Every operator should carefully supervise the administration of these anesthetics, allowing no more than is necessary to be used. Unless this be done patients will often be subjected to unnecessarily prolonged or reckless anesthesia. In cases in which surgical procedures are to be carried out in the lithotomy posture previous to abdominal section, it is frequently possible to carry out the former, either without a general anesthetic or by local anesthesia.

This is particularly necessary when the plastic operations may be extensive or there is expected to be prolonged abdominal work. Frequently the latter is more complicated than was suspected, and the patient may require to be subjected to the added risk of prolonged narcosis.

In recent years I have considerably extended the sphere of employment of local anesthesia, even in major operative procedures, in cases in which prolonged general anesthesia is not considered advisable, e. g., old age, kidney, pulmonary and cardiac diseases, marked anemia, chronic wasting diseases and sepsis. I recommend the Schleich infiltration method, solution No. 2 being employed.

In making the solution I am accustomed to prepare it twenty minutes before it is used, adding a little formalin to it to lessen the risk of infection.

Various plastic operations on the cervix, vagina and vulva may thus be carried out. The diseased uterus and adnexa may be extirpated. In performing this operation after infiltration of the fornix vaginæ and opening the peritoneal pouches, no further application of the anesthetic may be required in most cases; occasionally, however, when the patient complains it is advisable to infiltrate the broad ligaments before ligating them, since the latter procedure usually causes distress.

In opening the abdomen, the skin may be infiltrated for a distance of four or five inches in the line of the incision to be made. Thereafter, in the majority of cases, I rarely inject any more of the anesthetic solution. Formerly it was my practice to infiltrate the successive layers divided, but I now prefer to make a rapid division of the abdominal wall.

Various operations may be carried out after the abdomen is opened, e. g., removal of diseased tubes and ovaries, shortening of the round ligaments, myomectomy, supravaginal amputation of the uterus, appendectomy, resection of the intestine, etc.

It is important that the patient should be encouraged and cheered by the operator throughout the operation. If a few drops of chloroform be sprinkled from time to time on a mask held over the patient's face a strong suggestive influence is often exerted, the patient believing that she is being deeply anesthetized. Sometimes a patient may become so nervous and excited that her struggles make it impossible to continue the operation until general anesthesia is induced. But even if such a course is pursued, the advantage has been obtained of reducing to a minimum the amount of chloroform or ether which is necessary.

In the last five years I have only once been compelled to have recourse to a general anesthetic, in the case of a very nervous Italian woman. The largest operation I have performed without general anesthesia was an abdominal hysterectomy for the removal of a cystic fibromyoma of the uterus weighing 87 pounds. It was performed in the Presbyterian Hospital, Chicago, Dec. 16, 1902. The abdomen was opened after Schleich infiltration of the skin. After working for an hour, the patient became somewhat restless, and she was allowed to inhale a few drops of chloroform. During the remaining hour and a half this procedure was repeated from time to time, six drams of the drug being used in this way. The patient was conscious throughout the whole operation, and frequently engaged in conversation; no reflexes were abolished.

Recently I have performed vaginal cesarean section in a primipara suffering from severe nephritis, without any general anesthetic. The operation was difficult on account of the undilated condition of the vagina and a hypertrophic elongation of the cervix measuring nearly four inches. The procedure lasted about an hour, and was followed by complete recovery.

In conditions of extreme anemia or sepsis, I am convinced that the abandonment of general anesthesia will greatly diminish the risk to patients. I have thus opened the abdomen in ruptured ectopic gestation where the blood examination showed less than 24 per cent. of hemoglobin. In severe sepsis the tendency to degeneration in cardiac muscle, renal epithelium and other structures should always be remembered as a warning against the use of a general anesthetic.

With regard to the sensibility of the various tissues exposed and handled the following observations have been made:

On dividing the infiltrated portion of the skin no pain is felt if the infiltration has been well carried out. Division of the other tissues of the abdominal wall always causes pain, the parietal peritoneum being usually most sensitive. Suturing or dragging of a portion of the latter is always painful. The separation of adhesions between any structure and the parietes causes pain, except when the adhesions are very slight, whereas the separation of adhesions between viscera or between new growths and viscera very rarely causes distress. The omentum may be ligated, divided or cauterized without pain; when it is pulled downward pain is caused. When the intestines are handled, whether inflamed or normal, no pain is usually produced unless the mesentery be pulled forcibly.

Removal of the vermiform appendix does not usually cause distress. When its mesentery is stretched or when adhesions between it and the parietes are separated the patient usually complains.

Compression of the broad ligaments with forceps or ligature usually causes the patient to complain, as does perforation or division of them. Cauterization, scraping or stitching of the peritoneal surface of the uterus is rarely noticed by the patient, except at the attachment of the round ligaments; she usually complains when the organ is forcibly pulled upward or laterally putting the ligaments on the stretch. Ligation, division or stretching of the round ligaments always causes distress.

The separation of the tubes and ovaries adherent to the wall of the pelvis is always painful, though slight manipulation of these structures when free is apparently painless. When the ovary is firmly squeezed, resected or sutured, some complaint is usually made. Separation of the bladder from the uterus causes little or no distress. Division of the vaginal wall around the cervix in the performance of a hysterectomy always causes some pain. Sponging of the visceral peritoneum with gauze usually causes no distress, whereas the same procedure applied to the parietes causes pain which varies in intensity according to the force applied. The pain felt on the removal of a gauze drain from the abdomen is probably either due to friction against the parietal peritoneum or to traction on a mesentery or the omentum.

Slow flushing of the peritoneal cavity with hot (105 to 108 F.) normal saline solution usually causes slight or no distress. If, however, the abdomen be unduly distended the patient may complain.

My observations made during the last few years are almost entirely in harmony with those recently published by Lennander of Upsala, in an important contribution to our knowledge of the sensibility of the entire abdominal cavity, his chief conclusion being that all pains felt within the abdomen during operations or in disease are to be referred to parts which are innervated by the intercostal lumbar and sacral nerves, i. e., to the diaphragm and abdominal walls, as well as to such organs of which we know with certainty that they are innervated by the nerves in question or are in near relation to them.

100 State Street.

To remove foreign bodies from the ear, dip the end of a camel's hair brush in glue and leave it in position against the body. When dry, after a few hours, pulling on the brush will remove the whole thing.—*Canadian Practitioner.*

THE ULTIMATE RESULTS OF THE BLOODLESS REPLACEMENTS OF CONGENITALLY DISLOCATED HIPS.

JOHN RIDLON, M.D.
CHICAGO.

(Concluded from Page 1016.)

CASES IN THE THIRD GROUP.

The third group consists of the Lorenz cases, and is divided into three subgroups: (*a*), (*b*) and (*c*). He examined in my office and refused to operate on 17 patients, 27 hips, from 7 years (with 2½ inches shortening) to 29 years of age. He recommended operation in 3 other cases that, insofar as I can learn, have not been operated on. He advised operation in a unilateral case of 9 years, the operation to follow preliminary stretching by weight and pulley in bed for some weeks. This case I have since operated on, breaking the neck of the femur (Case 100, Group 4). He refused to operate on a unilateral case, a girl of 8 years, on the ground that replacement was impossible. This case was at once operated on by Dr. John L. Porter and myself, and appears as Case 98, Group 4.

Of these 32 hips, 15 were right and 17 were left. Of the 22 patients, 19 were girls and 3 were boys. One of the cases in which operation was recommended was 2 years old, and all were within the age limit, excepting Case 100 above referred to.

In detail the cases were as follows:

GROUP 3 A.

No.	Sex.	Age.	Hip.	Shortening.
51.	F.	10 yrs	R	
52.	M.	8 yrs	B.	2 in.
53.	F.	11 yrs	L.	
*54.	F.	8 yrs	B.	1½ in
55.	F.	20 yrs	L.	2¾ in
56.	M.	10 yrs	R.	1¾ in
57.	F.	8 yrs.	B.	
58.	F.	9 yrs	L.	
59.	F.	11 yrs	R.	
60.	F.	29 yrs.	B.	3½ in
61.	F.	13 yrs	L	2¼ in
62.	F.	16 yrs	B.	
63.	F.	13 yrs.	B.	
64.	F	9 yrs	L.	
65.	F	12 yrs	R.	2½ in
66.	F.	7 yrs.	B.	2½ in.
†67.	F.	12 yrs	B	4½ in.
68.	F	2 yrs	B	
69.	F.	8 yrs	L	
70.	M.	9 yrs	R.	2 in.
71.	F.	8 yrs.	L	
72	F.	9 yrs	R	

*Same as Case 23. †Same as Case 39

Two of these cases have since been operated on and will be referred to later on; none of the others have answered letters of inquiry as to their condition.

Group 3 (*b*) comprises the cases seen by me that Lorenz operated on. There were 22 patients, with 26 dislocated hips; 13 were right and 13 were left. Three of the patients were boys and 19 were girls. Their ages ran from 2 to 12 years. The shortening was from three-fourths of an inch to 2 inches. The results in these 26 hips were 12 anterior transpositions, 4 supracotyloid displacements, 7 failures, 1 apparent replacement and 2 perfect replacements. It is more than likely that some of the anterior transpositions will ultimately become supracotyloid. The accidents were: One torn perineum, one paralysis, one fracture of the neck of the femur, and one fracture of the shaft of the femur.

GROUP 3, B.

Case 73.—Female, age 6 years; right hip; shortening 1 inch. Same as Case 33. Operated on Oct. 12, 1902. Result said by Lorenz to be anterior transposition or "apposition."

Case 74.—Male, age 3 years; left hip; shortening ¾ of an inch. Apparent replacement immediately after operation. Parents told by Lorenz on removal of splint that replacement was perfect. Feb. 1, 1904, Dr. J. L. Porter found ½ an inch shortening and supracotyloid dislocation. See Fig. 6.

Case 75.—Female, age 11 years; left hip; shortening 2 inches. Same as Case 22. Failure. Improved position.

Case 76.—Female, age 8 years; right hip; shortening, 2 inches. Apparent replacement. Found anterior on removal of splint. Perineum torn from vagina into rectum at time of operation. Repaired by my house surgeon, and healed kindly.

Case 77.—Female, age 7 years; right hip; shortening, 1¾ inches. Professor Lorenz tried to effect replacement and gave up, saying: "It is not possible." At the suggestion of Dr. Ashley, who was assisting, I made the attempt and very soon effected a replacement. Lorenz then took the leg and made further stretching. There was extensive ecchymosis and a large hematoma following the operation. On removal of the splint the head was in anterior transposition, where it has remained. The right leg is one inch short. The femoral head shows prominently in the groin 1¾ inches below and ½ an inch to the inner side of the anterior superior spine of the ilium. The foot is rotated out 45 degrees in standing and 90 degrees when lying. There is a hollow about 2 inches across and about ¾ of an inch deep at the point where the adductors were torn from their upper attachment. The buttock is flattened. The abducted position in which the leg is held compensates for the real shortening, and the child walks very well. (Fig. 7.)

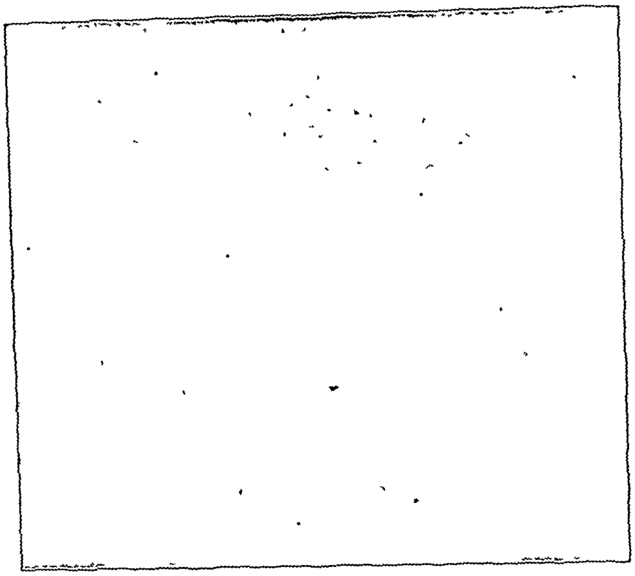

Fig. 6.—Case 74 Operated on by Lorenz. Apparent replacement. Became supracotyloid, apparently in much the same position as before operation. Skiagram Feb. 1, 1904.

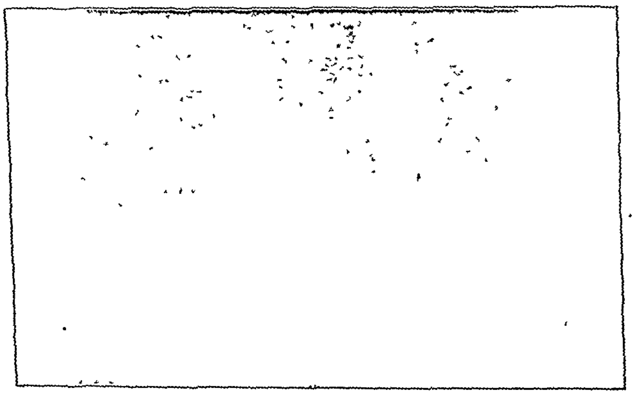

Fig. 7.—Case 77, Group 3 b, or Case 99, Group 4 Operation attempted by Lorenz, who gave it up as "impossible." Replacement made by Ridlon; limb afterward manipulated by Lorenz. Result: Anterior transposition. Head can be seen and felt in the groin. There is one inch shortening. Outward rotation deformity 45 degrees standing, 90 degrees lying. The skiagram shows the head apparently in an enlarged acetabulum, but it really lies below the anterior superior spine of the ilium. Skiagram made Feb. 19, 1904.

Case 78.—Female, age 2 years; left hip; shortening. I examined the case six weeks after the operation. There was apparent replacement. The case can not be traced. She is believed to have entered the hospital under an assumed name.

Case 79.—Female, age 10 years; left hip; shortening, 2 inches. Apparent replacement. Found anterior on removal of splint. Figure 8, from a photograph made at the time, shows the other hip also dislocated; the hip operated on being in anterior transposition.

Case 80.—Female, age 5 years; right hip; shortening 1¼ inches. Apparent replacement. Found anterior on removal of splint.

Case 81.—Male, age 9 years; right hip; shortening 1¼ inches. Femoral head could be felt in the groin two weeks after the operation. Does not answer request for examination and *x*-ray.

Case 82.—Female, age 8 years; left hip. Failed to replace, or transpose, after supreme efforts and prolonged traction by three powerful men. Plaster splint put on leg with abduction. Severe pain for some weeks, followed by paralysis.

Case 83.—Female, age 6 years; left hip; shortening ¾ of an inch. Same as Case 16. Dr. Lorenz told the father that the result was an anterior transposition.

Case 84.—Female, age 9 years; right hip. Head found prominent in the groin on removal of plaster splint and limb rotated out beyond 90 degrees. Dr. D. N. Loose reported it to me as a thyroid dislocation with 1½ inches lengthening. On examination I regarded it as an extreme transposition.

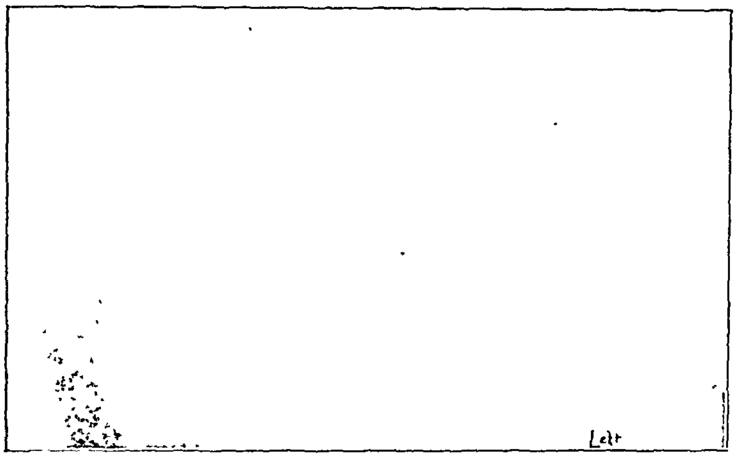

Fig. 8.—Case 79. Left hip operated on by Lorenz. Skiagram on removal of splint shows left hip in anterior transposition and right hip (not operated on) also dislocated.

Case 85.—Female, age 9 years; right hip. Splint removed by Lorenz at end of six months. Mother told that replacement was perfect. Now, Feb. 12, 1904, the limb is one inch short, and the head can be felt above and anterior to the acetabulum. Abduction compensates for the real shortening and the patient walks with scarcely a limp.

Case 86.—Female, age 8 years; left hip. Operated on Oct. 20, 1902. Lorenz broke the femur below the trochanters, and failed to replace the hip.

Case 87.—Female, age 7 years; both hips. Same as Case 48. Operation by me had been a failure. Lorenz apparently replaced the left hip, but fractured the femoral neck on the right side; the head could be felt separate from the neck under the gluteal muscles. Both legs were put up in plaster in the extremely abducted position. On removal of the splint the position was as shown in the skiagram, the left hip anterior and the head of the right showing indistinctly on the dorsum of the ilium.

Case 88.—Female, age 4 years; left hip. On removal of the splint the head was found in extreme anterior transposition.

Case 89.—Female, age 12 years; right hip; shortening 2 inches. Failed to replace or transpose. Splint put on in improved position.

Case 90.—Male, age 5 years; both hips. Apparent replacement of both hips. On removal of splint the right was found anterior, and the left apparently in place.

Case 91.—Female, age 3 years; right hip; shortening ¾ of an inch. Same as Case 18. (See Figs. 1 and 2.) Apparent replacement. Found anterior on removal of splint and has now become supracotyloid, with ½ an inch shortening.

Case 92.—Female, age 4 years; both hips. Apparent replacement of both hips. When I examined the case ten months after the operation I found the first splint had been removed and another put on with extreme abduction reduced about one-half. Both femoral heads could be felt under the splint distinctly anterior.

Case 93.—Female, age 5 years; both hips. Left hip apparently replaced; but Lorenz failed to replace the right, and this hip was not put in a splint. On removal of the splint from the left hip anterior transposition was found, which now has become supracotyloid. There is about ¾ of an inch shortening.

Case 94.—Female, age 2 years; left hip. Apparent replacement. Found apparently perfect on removal of the splint. (Fig. 9.)

Beside these there was another case, E. B.. 3 years old, that was operated on at Mercy Hospital, Oct. 25, 1902, by Professor Lorenz. The case was reported in the newspapers as a case of congenital dislocation of the hip, and so the mother understood the diagnosis to be. It was, however, a case of hip disease, without dislocation, that was first exam'ned by me at the Home for Destitute Crippled Children, July 11, 1902. Lorenz' plaster splint was removed Jan. 31, 1903.

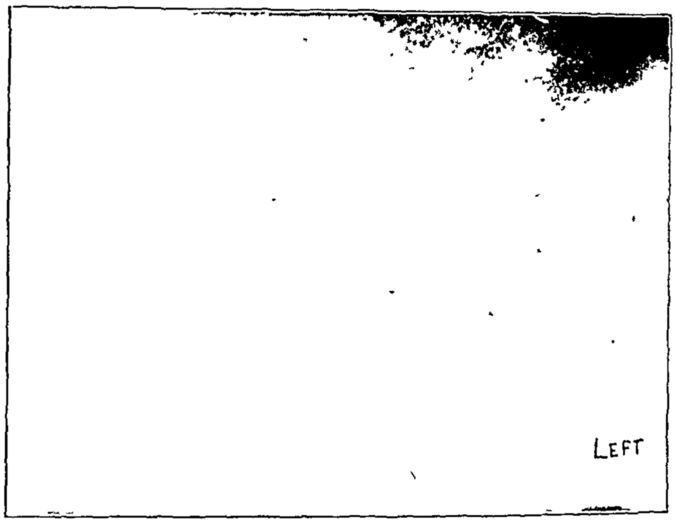

Fig. 9.—Case 94. Operated on by Lorenz. Skiagram on removal of splint. Perfect replacement. Has not been examined since.

The house surgeon at Mercy Hospital made the following report to me from the hospital records:

Oct. 25, 1902. Hip was stretched by working the adductors and pulling in straight line to the body. Head was brought into acetabulum. Body was next secured in his apparatus, collar about ankle, and leg was brought in over-extension, support being in small of back. Enough traction was used to keep head in acetabulum. Plaster cast was applied in this position. Cast to remain on 3 months, and according to findings another may be put on.

Group 3 (*c*) comprises the cases operated on by Lorenz, in which I have had no personal responsibility, but about which I have been able to learn the facts. Dr. T. A. Davis, Chicago, permits me to report the following case:

Case 95.—Female, age 6 years; left hip. (Fig. 10.) Operated on by Prof. Lorenz at the College of Physicians and Surgeons Oct. 31, 1902. The plaster splint put on at the time of the operation was left on seven months, as was directed; and two other splints were put on by Dr. Davis; altogether she was in plaster about eleven months. Dr. Davis believed the ultimate result to be a complete relapse into the position previous to the operation. Feb. 22, 1904, Dr. J. L. Porter examined and radiographed this case. (Fig. 11.) He reports: The left leg is ⅞ of an inch short; outward rotation when lying, 90 degrees; when standing, 45 degrees; head can be felt in groin just external to femoral vessels one inch below anterior superior spine; walks with a marked limp. The parents think she is improved over former condition.

Dr. J. L. Porter, Chicago, permits me to report the two following cases:

CASE 96.—Female, age 2 years; left hip. Operated on by Lorenz Oct. 16, 1902. The splint applied at the time of the operation was left on six months. When taken off the leg was brought down half way and replaced by another by Dr. Porter. This was worn two months. Then another was put on with the leg nearly straight. At both sittings the head was felt in the acetabulum, so far as palpation and measurements could determine. Figure 12 shows the condition before operation Feb. 20, 1904, I examined this case. The limb is ¾ of an inch short, outward rotation about 45 degrees, the head of the femur can be felt between the anterior superior spine and the upper border of the acetabulum, with the top of the head about on a level with the anterior superior spine. Walks with a marked limp, and the mother thinks the gait is growing worse.

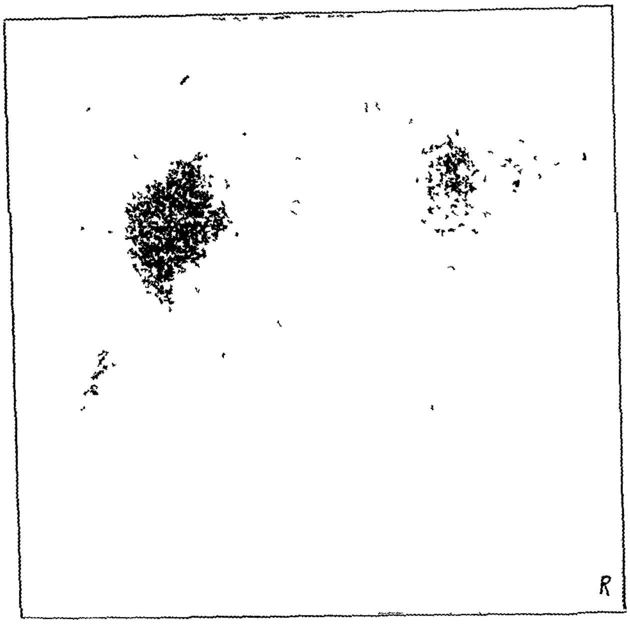

Fig. 10.—Case 95. No. 1. Before operation by Lorenz. See Figure 11.

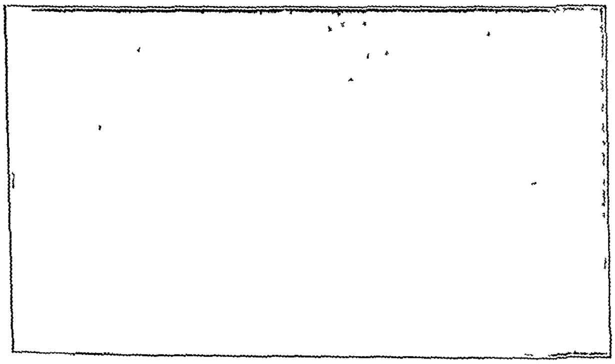

Fig. 11.—Case 95. No. 2. Skiagram Feb. 22, 1904. Compared with Figure 10 shows complete relapse. There is a supracotyloid dislocation on examination.

CASE 97.—Female, age 5 years; right hip. Operated on by Lorenz Oct. 16, 1902. Dr. Porter had made two previous replacements without extensive tearing of the adductor muscles and both times it had relapsed. The splint put on at the operation was removed at the end of six months; the second, put on by Porter, was removed at the end of two months, and a third about the middle of July, 1903. The head of the femur could be felt in the groin at each sitting. The leg was brought entirely down by July. Feb. 20, 1904, I examined this case. The limb is one inch short; it is possible to passively flex the limb in the anteroposterior plane only about 20 degrees, but in the lateral plane it can be carried to a right angle; the outward rotation standing is 45 degrees, and lying 90 degrees; the head can be felt and seen in the groin below and internal to the anterior superior spine, exactly under (posterior to) the femoral vessels. Walks with a marked limp; mother does not notice any change in gait.

Of these 29 hips operated on by Lorenz, there are two perfect replacements (as shown by the skiagram, but their condition has not been observed six months after the removal of the splints); one apparent replacement (which may prove permanent); six supracotyloid displacements; thirteen anterior transpositions and seven failures.

It would not be fair to place these figures in comparison with the results of other operators. To any one witnessing Lorenz' work in this country, it was obvious that he could not do his best work before a large and critical audience. The after-treatment was in most instances not in his hands, or in those of his assistant, and some allowance must be made for that. On the other hand, insofar as my observation goes, those cases that have been wholly under his personal care and the personal care of his assistant, do not show better results than the others, and the two cases that I have reported as perfect have not been seen by Lorenz since they were operated on.

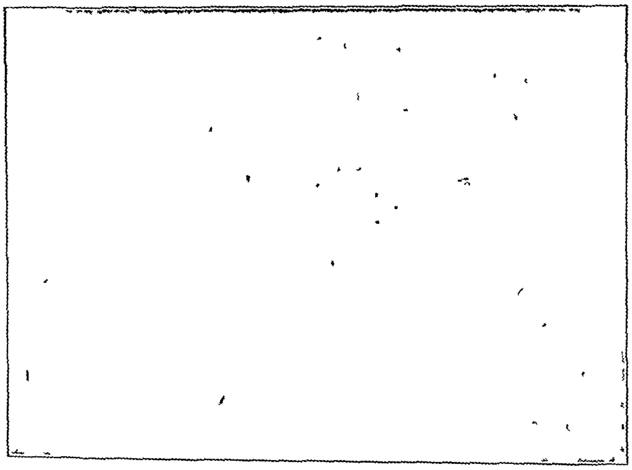

Fig. 12.—Case 96. Operated on by Lorenz Oct. 16, 1902. Skiagram by Dr. John L. Porter Oct. 13, 1902.

Oschner[3] says of Lorenz' results: "In 212 carefully observed cases treated before Jan. 1, 1899. Lorenz reports 108 anatomically and functionally perfect results; 102 anatomically imperfect, but functionally good." Comparing these figures with all "carefully observed" results of his work in this country, I am forced to the conclusion that the difference requires some explanation that I am not able to give.

As I have already said, I believe this is the best operation for all congenitally dislocated hips, and the only operation to be considered in bilateral dislocation, but I think the results will be about what has been shown in these 29 hips, namely, about 10 per cent. perfectly stable anatomically perfect replacements; about 50 per cent. to 60 per cent. of anterior transpositions or "appositions," and supracotyloid displacements, "good results," and about 20 per cent. to 30 per cent. failures. With such results as these I think we must be satisfied.

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[3] Annals of Surgery, August, 1902.

CASES IN FOURTH GROUP.

Group 4 consists of those cases that have been under my observation and have been operated on by me since Oct. 12, 1902, and are not included in either of the other groups.

There were 43 patients, with 53 dislocated hips; 25 were right and 28 left. Three of the patients were boys and 40 were girls. Their ages ran from 17 months to 13 years for those operated on, with one 21 years old that was rejected. The shortening was from one-half inch to 3½ inches for those operated on.

The results were: Seven anterior transpositions; 4 supracotyloid displacements; 5 failures; 4 apparent replacements on removal of the splint, the condition of which can not be positively verified at this time; 6 perfect replacements; 2 (in the patient 21 years old) were rejected; 4 refused operation; 6 are waiting for operation; and 15 were apparently replaced at the operation and are still in their plaster splints.

It is probable that some of the 4 apparent replacements may become anterior transpositions or suprocotyloid displacements; and it is possible that some of the supracotyloid displacements may relapse into posterior dislocations.

The accidents were the fracture of the neck of the femur in two girls of 9 and 10 years, respectively.

Group 4.

Case 98.—Female, age 8 years; left hip. Same as Case 71. Rejected by Lorenz. Operated on by Dr. J. L. Porter and myself. Apparent replacement. Found anterior on removal of splint. Again replaced and abduction reduced. Found supracotyloid on removal of splint.

Case 99.—Female, age 7 years; right hip. Same as Case 77. (Fig. 7.) Apparent replacement. Found anterior on removal of splint.

Case 100.—Female, age 9 years; right hip. Same as Case 72. Neck of femur fractured and head not replaced. Walks well; abduction compensating for the real shortening. Has little motion at the joint.

Case 101.—Female, age 10 years; right hip. Fracture of neck of femur. Now abducted 45 degrees; very little motion.

Case 102.—Female, age 3 years; left hip; shortening ½ of an inch. Perfect replacement. This child also had congenital talipes calcaneus and a congenital kyphosis. On removal of the splint there was apparently perfect replacement. At the end of six months the child began to complain of cramps in the leg; flexion at the joint was restricted and the femoral head could be felt in front. Under massage and passive motion the cramps ceased, the head disappeared and motion returned. The condition is now normal.

Case 103.—Male, age 4 years; both hips. Apparent replacement. Femoral heads found anterior on removal of splint.

Case 104.—Female, age 13 years; left hip. Patient had spastic paralysis and had never walked. Fragile bones were feared and the adductors and long flexors were tenotomised before replacement was attempted. Replacement was made without difficulty and remained permanent.

Case 105.—Female, age 5 years; left hip. Perfect replacement.

Case 106.—Female, age 8 years; left hip. Apparent replacement. Has not been seen six months after removal of splint.

Case 107.—Female, age 3 years; right hip. Apparent replacement. Has not been seen six months after removal of splint.

Case 108.—Female, age 2 years; left hip. Perfect replacement on removal of splint. Dr. J. C. Sexton, Rushville, Ind., reports that replacement has remained perfect.

Case 109.—Female, age 6 years; left hip; shortening 1½ inches. Apparent replacement. Found anterior on removal of splint. The child had had in infancy a congenital talipes equinovarus and genu-recurvatum on this same side.

Case 110.—Female, age 17 months, left hip. Apparent replacement. Found supracotyloid on removal of splint. Abduction compensates one inch shortening, and child walks with scarcely a limp.

Case 111.—Female, age 3 years; both hips. Apparent replacement on removal of splint. Skiagram showed slight supracotyloid displacement. Still under treatment, but it is expected that the result will be supracotyloid displacement.

Case 112.—Female, age 9 years; both hips; shortening 3 inches. Was a large, strong girl. Six weeks' preliminary traction was made. Replacement was made without difficulty but before the plaster splint was fully on it was found that there was little or no circulation below the knees and no pulse at the ankles. The plaster splint was cut off and the hips redislocated. Circulation soon returned. The parents refused to permit further treatment.

Case 113.—Female, age 5 years; right hip; shortening 1½ inches. Apparent replacement. Found anterior on removal of splint. Again replaced and put up with abduction and flexion half reduced. Dr. Clifton Scott, Des Moines, reports perfect result ten months after the operation.

Case 114.—Female, age 4 years; both hips. The hips were dislocated anteriorly. There also was congenital talipes equinovarus, knees flexed 45 degrees with little motion and no patellæ, clubbed hands, elbows flexed 30 degrees and having little motion, arms webbed to the body one-third of the way to the elbows and having little motion in abduction. The hips have not been operated on.

Case 115.—Female, age 3 years; both hips. This case was precisely like the last, No. 114, except that the hands and elbows were normal.

Case 116.—Female, age 4 years; left hip. Apparent replacement on removal of splint. Can not be traced.

Case 117.—Female, age 10 years; right hip; shortening, 1½ inches. Still under treatment.

Case 118.—Female, age 7 years; left hip; shortening 1¾ inches. Failed to replace. Put up abducted to improve position. Walks fairly well.

Case 119.—Female, age 8 years; right hip. Apparent replacement. Found anterior on removal of splint.

Case 120.—Female, age 2 years; left hip; shortening 1 inch. Perfect replacement.

Case 121.—Female, age 2 years; left hip. Apparently in place on removal of splint. Not seen since. Mother reports child "doing well."

Case 122.—Female, age 2 years; right hip. Refused operation.

Case 123.—Female, age 6 years; both hips. Apparent replacement. On removal of splint the left hip was in place, and the right was anterior.

Case 124.—Female, age 21 years; both hips. Rejected.

Case 125.—Male, age 4 years; right hip; shortening 1⅛ inches. Apparent replacement. Still under treatment.

Case 126.—Female, age 10 years; left hip; shortening 3½ inches. Apparent replacement. Still under treatment. These last two cases are brother and sister.

Case 127.—Female, age 2 years; left hip; shortening 1 inch. Apparent replacement. Still under treatment.

Case 128.—Female, age 8 years; left hip; shortening 2 inches. Apparent replacement. Still under treatment.

Case 129.—Female, age 13 years; right hip; shortening 2½ inches. Preliminary traction. Apparent replacement. Still under treatment. A skiagram shows supracotyloid dislocation, a flattened head and a short neck. This is the oldest case I have operated on.

Case 130.—Female, age 5 years; right hip; shortening 1⅛ inches. Apparent replacement. Still under treatment.

Case 131.—Female, age 3 years; both hips. Apparent replacement. Still under treatment.

Case 132.—Male, age 6 years; right hip. Apparent replacement. Still under treatment.

Case 133.—Female, age 3 years; left hip; shortening ⅞ of an inch. Apparent replacement. Still under treatment.

Case 134.—Female, age 2 years; both hips. Refused treatment.

Case 135.—Female, age 6 years; right hip. Apparent replacement. Still under treatment.

Case 136.—Female, age 18 months; left hip. Apparent replacement. Still under treatment.

Case 137.—Female, age 11 years; right hip. Apparent replacement. Still under treatment.

Case 138.—Female, age 9 years; both hips; shortening, left 1 inch, right 1¾ inches. Apparent replacement. Still under treatment.

Case 139.—Female, age 3 years; right hip; shortening 1 inch. Supracotyloid dislocation. Not yet operated on.

Case 140.—Female, age 4 years; left hip; shortening ¾ of an inch. Refused operation. Also has bilateral genu-recurvatum.

Deducting 10 duplicated cases, with 13 hips (from the total, 140 patients, with 172 hips), leaves 130 patients, with 159 dislocated hips. Of these 159 dislocated hips, 94 have been operated on. The results in several are not final, but only 10 can be asserted to be perfect anatomic replacements. About these I have no doubt. How many of the 14 that were apparently in place when the splints were removed, but have not been radiographed or examined six months later, will prove to be permanent, is, of course, a matter of opinion. Some are likely to prove permanent; some are likely to become anterior or supracotyloid, and some may relapse, but none of the dislocations originally dorsal have been demonstrated to have relapsed when the adductor muscles have been freely torn.

How many of the 33 anterior transpositions and supracotyloid displacements will relapse into the dorsal position is also a matter of opinion, but as I have already said none have been demonstrated to have done so. How many of the 15 still in plaster splints will be perfect, anterior or supracotyloid is also a matter of opinion. but I feel sure none will relapse into their former position on the dorsum of the ilium.

If, then, we are satisfied to call an anterior transposition and a supracotyloid displacement, where the shortening is fully compensated by the abduction, if we may call these "good results," and I think we may, we have 61 "good results" and 10 perfect replacements out of 94 hips operated on.

There were 17 failures to replace (7 by Lorenz and 10 by me) and 5 relapses (all mine and before Lorenz came). Lorenz operated on 2 of my relapsed hips and on 3 that I failed to replace. He failed in 2 of the latter, breaking the femoral neck in 1, and has anterior transpositions in the 3 other cases.

Lorenz' teachings have led me to assume that he expects, in some instances, to obtain perfect anatomic replacement in some cases where the femoral head is in anterior transposition, or "apposition," when the splint is removed. I doubt very much if this will be found to be possible. At any rate, it has not been demonstrated, nor do I believe that any of supracotyloid displacements will, by any bloodless procedure, be made perfect replacements. When anterior transposition results it appears to be due to too freely tearing the tissues in front of the joint; when these are healed they are not sufficiently strong to retain the head in the acetabulum if it is again replaced. When supracotyloid displacement results it appears to be due. as shown by the skiagrams, to a deficient upper lip to the acetabulum, or what Lorenz calls a "saucer-shaped" acetabulum, in contradistinction to a "cup-shaped" socket.

In cases where the adductors are not freely torn and the anterior tissues not overstretched, relapse into the dorsal position may occur. Then replacement may be made, again and again, with a reasonable prospect of success. This was demonstrated in Ochsner's celebrated case, where three replacements were made before a perfect and permanent replacement was effected.

My experience leads me to believe that if a femoral head is not actually well buried in the acetabulum, and shown to be so by the *x*-ray, when the splint is removed, it is very doubtful if a permanent replacement will ever result; the result is pretty sure to be an anterior transposition, a supracotyloid displacement or a relapse into its former position. And I am inclined to think that a replacement that can be displaced by bringing the limb down beside its fellow, and this is the condition practically always present, is not really replaced; but that it simply rests more or less deeply within the contracted cotyloid ring; that when the head readily becomes displaced it does not thereby demonstrate a shallow acetabulum, but simply a contracted cotyloid ring. It certainly indicates that a perfect anatomic replacement is not likely to be the result, but that it is not necessarily impossible.

Dr. G. G. Davis, Philadelphia, in a paper[4] read before the *American Orthopedic Association*, last June (1903), says: "To obtain a perfect result it is necessary, first, that a well-formed acetabulum be present and that the femoral head be likewise well formed and set on the neck and shaft in its proper position and direction. Also that the ligaments be so placed as to allow of the proper replacement of the head back into the acetabulum." With this proposition I fully agree.

In considering these cases we learn that the operative age in bilateral congenital displacements is at least a year or two years less than in unilateral cases; that the age of choice is from three to five years; that occasionally a bilateral case as old as eight or nine is possible, and a unilateral case as old as eleven or twelve; that age, *per se*, is not so much to be relied on as the amount of shortening and the rigidity; and that the results of apparent replacements in bilateral cases is much less certain; that is to say, certain of remaining in place than in unilateral cases.

We learn that anterior transposition frequently follows too violent operative measures in reduction; and that retraction (structural shortening) of the posterior muscles of the hip, as pointed out by Redard of Paris, during the period of retention in the extremely abducted position, is the cause of the outward rotation of the limb, or the inability of the patient to rotate the limb inward, and is a condition very difficult, often impossible to correct; and the generous tearing of the adductors, as practiced by Lorenz, adds to this misfortune.

On the other hand, in those cases where the final result is a supracotyloid displacement, it appears that the adductors show little or no tendency to recontract, and the limb is held sufficiently abducted to greatly, and in many instance completely, compensate for the actual shortening from 1 to 1½ inches, and the patient walks with little or no limp. Also, in some of the cases where replacement, anterior transposition or supracotyloid displacement has not been possible by the operation, much the same functional result may be had by freely tearing the adductors and subsequently maintaining the limb in extreme abduction for some months.

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[4] Amer. Med., Aug. 29, 1903.

In operating one is called on to choose between a possible relapse into dorsal dislocation, and the passing of the head into anterior transposition, in case perfect replacement is not obtained. If one does not tear the adductors freely, relapse into dorsal dislocation may be the result; if one tears them too freely, anterior transposition may be the result; and if one chooses the middle ground, supracotyloid displacement may be the result. A good skiagram will be of immense assistance in helping one to a choice between not tearing and tearing freely, and in the absence of a skiagram one may judge fairly accurately by the ease with which displacement results when the limb is adducted.

I am inclined to the opinion, though it has not been proved, that other congenital defects in the child, such as clubfoot, genu-recurvatum, absent patellæ, clubbed hands, defects of the elbows and shoulders, congenital kyphosis, rupture, etc., in the patient, and congenital defects in the parents (the father of one of my patients had congenital absence of the leg), all render a perfect replacement less probable.

There can be no doubt that subcutaneous division of the long-thigh muscles would make reposition much easier in all cases and possible in some otherwise impossible cases. But to a strong and patient operator the shortened muscles do not form the chief obstacle—it is the shortened nerves and blood vessels which, when put on the stretch, give paralysis and obstructed circulation. This is illustrated by Case 112, where replacement, after preliminary weight-and-pulley stretching in bed, was easily effected in a strong-muscled girl of 9 years with three inches shortening. The circulation was cut off and the hips had to be redislocated.

On the other hand, in Case 129, a girl of 13 years, the hip was replaced after preliminary stretching and the circulation remained good, but the skiagram shows the upward displacement not great, though the shortening as shown by measurement was 2½ inches. Some of this shortening was unquestionably due to the shortening of the femoral head and neck.

Paralysis, which is one of the possible accidents, appears to me to be due to a too severe longitudinal stretching at the time of the operation.

Tearing of the perineum need not result if a rubber pad is placed beneath the sheet that is passed between the legs and fastened to the table to give counter-traction.

In Case 79 a skiagram (Fig. 9) was made when the splint was removed, and shows anterior transposition of the operated hip and an upward displacement of the hip not operated on. I can not believe that Professor Lorenz could have overlooked this dislocation, and can only assume that it became dislocated during the period of walking with the pelvis tilted and the leg adducted to accommodate the leg in the plaster splint.

Fracture of the shaft of the femur, which happened in one of Lorenz' cases, and fracture of the neck of the femur, which happened once under Lorenz' operation, and twice under mine, seems to be due to lack of patient and deliberate manipulation on the part of the operator. Fracture of the shaft should be put up in plaster with the limb fully extended, as Lorenz did in his case. Figure 10 shows how good the result was. In fracture of the neck, I believe the limb should be put in extreme abduction for three or four weeks and then gradually brought down beside its fellow while the plaster splinting is continued. By this method one of my cases gave a good result, while Lorenz' case and my second case, treated for six or eight months in right-angled abduction, gave a permanent abduction deformity which promises the need of another operation.

Note:—The discussion on this paper will be found in Society Proceedings in this issue, in the report of the New York Academy of Medicine.

THE FIRST USE OF ETHER AS AN ANESTHETIC.

AT THE BATTLE OF THE WILDERNESS IN THE CIVIL WAR.*

W. T. G. MORTON, M.D.
BOSTON.

On previous occasions it had been my privilege to visit battlefields, and there to administer the pain-destroying agent which it pleased God to make me the human agent to introduce for the benefit of suffering humanity. How little did I think, however, when originally experimenting with the properties of sulphuric ether on my own person, that I should ever successfully administer it to hundreds in one day, and thus prevent an amount of agony fearful to contemplate.

When the news of the commencement of the Battle of the Wilderness reached Washington, the surgeon general at once said that there would be work for his corps, and for such volunteer surgeons as could be obtained. Previously notified that a requisition would be made for my professional services, I was a "minute man," and left with the first party, taking a steamer for the landing-place called Belle Plain. . . .

I was awakened about daybreak by the clatter of hoofs and rattling of wheels. Peeping out from under my blanket I saw a four-horse ambulance, and heard the driver say to an orderly: "We have brought down General Getty, badly wounded, and must go back to Fredericksburg right away." "Now is my chance," thought I, and springing to my feet, I sought the medical director, who cheerfully gave me an order to go back in the ambulance, so that I left before my professional associates were awake.

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* This is an abstract from an unpublished paper by the late W. T. G. Morton, M.D., of Boston, to whom the world is so deeply indebted for his early investigations of ether anesthesia. It was written soon after the Battle of the Wilderness in May, 1864, and has been furnished for publication by his son, Dr. Wm. J. Morton of New York City, by request of Dr. Henry O. Marcy of Boston. As an introduction we quote the following from the valedictory address delivered by Dr. John H. Brinton to the graduating class of Jefferson Medical College in 1892:

"Let me, from personal reminiscence, relate an anecdote in point: In the early summer of 1864, during the fierce contest in the Virginia Wilderness, I was present officially at the headquarters of Lieutenant-General Grant, on whose staff I had previously served. When in conversation with him, an aide approached and said to him that a stranger, a civilian physician, wished to see him for the purpose of obtaining an ambulance for his personal use in visiting the field hospitals. The answer of the General was prompt and decided: 'The ambulances are intended only for the sick and wounded, and under no circumstances can be taken for private use.' This response was carried as given to the waiting applicant, a travel-stained man in brownish clothes, whom at the distance I thought I recognized. I went to him and found that he was Dr. W. T. G. Morton. I asked him to wait a minute, and returned to the General. On repeating his request I received the same answer. 'But, General,' I ventured to say, 'if you knew who that man is I think you would give him what he asks for.' 'No. I will not,' he replied. 'I will not divert an ambulance to-day for any one; they are all required elsewhere.' 'General,' I replied, 'I am sure you will give him the wagon; he has done so much for mankind, so much for the soldier; more than any soldier or civilian has ever done before, and you will say so when you know his name.' The General took his cigar from his mouth, looked curiously at the applicant, and asked: 'Who is he?' 'He is Dr. Morton, the discoverer of ether,' I answered. The General paused a moment, then said: 'You are right, Doctor, he has done more for the soldier than any one else, soldier or civilian, for he has taught you all to banish pain. Let him have the ambulance and anything else he wants.' Not only this, but I have learned from a printed letter of Dr. Morton, recently sent me by his family, that the hospitalities of the headquarters—ambulance, tent, mess and servant—were afterward tendered him during his stay, by order of the general commanding."

Fredericksburg is nine miles distant from Belle Plain, with which it is connected by two main roads, and just now by a score or so of avenues, constructed for existing emergencies. The country, all the way between these points, is stripped entirely bare of fences, stock and products of whatever description, and, in the entire distance, I do not remember to have seen more than six houses. Immediately back of the landing at Belle Plain a range of hills stretches away to the east in abrupt, precipitous angles, with deep ravines ribbing their sides, through which roads have been constructed, along which the immense trains climb with difficult ascent, often overturning, sometimes breaking down, utterly. On the summit of this range of hills are thick growths of low timber, while the slopes are strewn with patches of thicket—mostly of pines and scrub oak. The place is inexpressibly wild and desolate, and the only living beings visible were teamsters, wounded soldiers and mounted patrols.

In one dreary defile up came four men from behind us, and rode past at a brisk trot, two on each side. As they wore the Federal uniform, neither the driver nor myself mistrusted them, until, as if by magic, two each seized one of our leading horses, while the other two cut the reins and traces, and away they went. They were a quartette of guerillas, who thus helped themselves to a good pair of Uncle Sam's horses, leaving us to pursue our journey with a single pair instead of four-in-hand. The audacity of the rebel guerillas is astonishing. although they invariably seek unarmed or wounded subjects for plunder, and keep a wide distance from our patrols.

At last we rattled over a pontoon bridge, and entered the remains of the war-desolated city of Fredericksburg, once one of the most beautiful and flourishing places in Virginia. It is regularly laid out, the streets are shaded with trees, and although the houses are not noted for their architectural beauty, yet they are built with an idea of simplicity and of convenience which can not but charm the beholder. Nearly every house has a large garden, both in the front and rear, filled with all kinds of vines and flower trees. . . .

At first, there was confusion and lack of supplies, causing much suffering and discomfort. But Surgeon Dalton, the efficient medical director, soon had everyone made as comfortable as circumstances would permit, and the Sanitary and Christian Commissions did their share of the noble work. Scores of volunteer nurses, state relief agents and other good Samaritans did what they could to relieve the necessities and alleviate the sufferings of these brave wounded men.

The ambulances could not have brought one-tenth part of them, and the rest were brought in wagons, eleven or twelve miles over the remains of a planked road, worn by war-travel. In places the larger wagons had to be pried out of the deep holes with trimmed trees. The delays of the entire train from this cause were frequent and long. The depth of these holes, and the instinct and habit of the lead and middle team of mules to trot away from a wagon in a sudden descent, in order to escape the whipple-trees, inflicted on the unfortunate wounded, blows and jars excruciatingly torturing and that wasted their remaining vitality. Over every rod of the way and in the best two-horse spring ambulances, a jarring motion was communicated by the absence of half the planks on the planked side of the road, and the ruts and holes cut into the clay side during a week's rain by the transportation machinery of an army of a hundred thousand men. On such a highway, and in such a manner, did these poor fellows, who stretch their hands out of these ambulances and army-wagons for tin-cupfuls of water. painfully travel—some with arms off at the shoulder, some with legs off above the knee, some with an arm and leg both off, hundreds shot through the leg or arm or the breast, some with horrible wounds of the face—even to the loss of the jaw and the destruction of speech—all presenting, in the aggregate, every possible variety of gunshot wound. . . .

Having been assigned quarters in a fine old mansion, I commenced going the rounds of the buildings used as hospitals, to administer anesthetics. There was at first a lack of supplies, and many of the wounded, who had been jolted over hard roads some eight and forty hours, were in a bad condition. Several hundred, packed into a church or hall, without change of clothing or washing, made the atmosphere unbearable almost, and gangrene and erysipelas began to make their appearance, but this was soon remedied.

One of the principal hospitals was the Baptist Church, which was literally packed with wounded. The tank intended for immersion was used as a bathing tub, and the operations were performed in the pastor's small study, back of the pulpit.

The Free Masons' hall was also filled with wounded, and there remains much of the paraphernalia of the lodge in which Washington received his degrees. I found one poor fellow who was a member of the fraternity, and at his request had his bed moved to the platform once occupied by the master's chair, where he lay and gazed upward at the mystic letter "G," as if secure under its protection.

It was a noteworthy fact that, although each of the great armies which met in the Battle of the Wilderness had at least 250 pieces of artillery, there were not in the hospitals at Fredericksburg a dozen men wounded by cannon shot or shell. Out of the 3,000 reported as wounded in Hancock's demand, not one had received a shot or shell wound from artillery. It was also noticed that many of the wounds received were caused by balls which had glanced from trees or rocks, inflicting comparatively slight injuries. I was informed by a division surgeon that out of about 1,000 wounded under his charge, not over thirty were permanently disabled. . . .

By Thursday, May 12, the wounded at Fredericksburg were all well cared for. Surgeons and nurses had arrived. The Sanitary and the Christian Commissions were actively at work. All those patients who could bear transportation were being sent away, and I was beginning to think of making a visit to the front, when a summons came requesting me to hasten thither. There had been fearful fighting, as General Grant had swung around his army out of the bloody Wilderness, and he now faced Spottsylvania Court House.

Leaving Fredericksburg in company with an officer of my acquaintance, we started for headquarters. Just out of the town we passed some four or five hundred army wagons, each one with its four or six horses or mules ready for service, yet near the supplies of forage.

There were also large droves of cattle, brought from the western states for the use of the Army, and killed as they were needed. The road. if road it may be called. was wretched indeed, the horses often sinking in mud holes to the saddle girths. Through this ambulances and wagons were floundering along, carrying the wounded to Fredericksburg, while others, only slightly injured, plodded along on foot. Occasionally we passed an impromptu camp, where these slightly wounded men had stopped to rest, and several newly made graves showed where some poor fellows had made their last halt.

It is the most sickening sight of the war, this tide of the wounded flowing back. One has a shattered arm, and the sling in which he carries it is the same bloody rag the surgeon gave him the day of battle; another has his head seamed and bandaged so you can scarcely see it, and he weaves like a drunken man as he drags along through the hot sun; another has his shoe cut off, and a great roll of rags wound around his foot, and he leans heavily on a rough cane broken from a pine tree; another breathes painfully and holds his hand to his side, where you see a ragged rent in his blouse; another sits by a puddle, dipping water on a wounded leg, which, for want of dressing since the battles, has become badly inflamed; another lies on a plat of grass by the roadside, with his browned face turned full to the sun, and he sleeps. So I passed hundreds, in riding a few miles. They move along silently, making no complaints, asking no questions and no favors of the passerby. Such heroic bravery and fortitude are only surpassed by their valor on the field of battle.

The appearance of the country along our way is calculated to make the scene all the more impressive. The two hostile armies which have occupied this part of the Old Dominion ever since the war begun, have fought over nearly every acre of this ground. Although there were fine farms and luxurious old Virginia homes along this road, not a house, not even a rail, is to be seen. Desolation seems to have marked it for her own. At long intervals the blackened walls, ruins of Virginia, stand as a ghostly record of rebellion. The plains are already grown up with wild bushes, and are fast taking the appearance of the old battlefields to which we used to make long pilgrimages with curious interest.

On reaching the top of an eminence, I at last saw our line, in the shape of a horseshoe, somewhat straightened out, with troops all around, in readiness for instant attack, while beyond them, crouched in rifle-pits, were our pickets. Riding through regiments and batteries I reached a house which had been pointed out to me as General Grant's headquarters, but found on my arrival that he had moved so that the building might be used as a hospital. Just then several wounded rebels were brought up on stretchers, and the surgeon in charge, who had known me after Burnside's attack on Chancellorsville, invited me to administer anesthetics, which I did. All of them had limbs amputated, and seemed very grateful afterward for the kind treatment which they received. . . .

When these wounded Confederates had been attended to, the surgeon sent an orderly with me to the headquarters of the medical director of the Army of the Potomac, to whom I reported for duty, and then, as there was no need for my services, I went on until I reached the headquarters of the Army. These occupied a group of about twenty tents, pitched along the border of a piece of woodland. In front of one of these tents, the fly of which was converted into an awning, sat the lieutenant general with several officers and Mr. Dana, the assistant secretary of war.

I had been introduced to General Grant at Washington, and he at once remembered me and gave me a kindly welcome. Had I not previously known him, I should never have dreamed that so unpretending a person was the commander of so mighty a host. He is rather undersized, compactly built, and evidently able to endure great fatigue. His sandy hair is thick and bushy, as yet not marked with gray. The barber has had nothing to do about his face since the war commenced, wherefore much of the native expression of his countenance is lost under moustache and beard. A dry, straight-cut mouth and clear gray eyes are about all that are visible. On his forehead the skin, well tanned and browned by exposure, is drawn over the frontal bone tight and smooth as a drumhead. It is said that not a wrinkle or a frown is ever seen there. It is the expression of immovable calmness. His forehead is higher and better than it appears to be, for it is concealed by coarse, bushy hair. Incessant, close and rapid thought is going on there, however quiet the external signs may be.

The general says but few words, yet he is not morose or repulsive. This reticence is not the result of misanthropy or ill-nature, for no trial of temper ruffles the calmness of his mind. No officer is more approachable. There is no general commander so ready to dispense with ceremony or the show of rank, to listen carefully and to reply plainly to the point.

I found General Meade in excellent spirits, and he gave me the agreeable intelligence of a brilliant success which had been achieved that morning, "before breakfast," as he expressed himself. Before day, General Hancock ordered a slow advance of his line of battle in the direction of the line of intrenchments held by Ewell's corps, who were in his front. Slowly and surely did his men creep forward and the dawn of day found them close on the sleeping and unsuspecting rebels.

The firing amounted to little or nothing; there was no time or necessity for such work. The shelter tents of the enemy, erected near their line of entrenchments, were entered by our troops before the rebels had time to escape from them; they were surrounded, cornered, hemmed in and fairly dumbfounded, and on the command being given to surrender they at once dropped their arms and became passive, resistless prisoners of war.

The artillery had not time to limber up and get away or fire a single volley before our dashing troops were among them. Even their general, whose quarters were somewhat in the rear, could not escape, and he, together with the greater portion of his command, became subservient to the orders and commands of the redoubtable Hancock. The prisoners taken numbered between six and seven thousand, including two generals, and some thirty pieces of artillery were also captured. This was the first battle of Spottsylvania Court House. After having narrated the morning's work, as he called it, General Grant suggested to me that it would be well to visit the scene of this sanguinary contest.

Although the rain fell in torrents, I followed his advice, and witnessed a scene which was horrible enough to curdle the blood of the coldest. The angle of the works at which Hancock entered, and for the possession of which the savage fight of the day was made, is a perfect Golgotha.

In this angle of death the dead and wounded rebels lie, literally in piles—men in the agonies of death groaning beneath the dead bodies of their comrades. On an area of a few acres in rear of their position lie not less than a thousand corpses, many literally torn to shreds by hundreds of balls, and several with bayonet thrusts through and through their bodies, pierced on the very margins of the parapet, which they were determined to retake or perish in the attempt. The one exclamation of every man who looks on the spectacle is: "'God forbid that I should ever gaze on such a sight again."

On Saturday morning, May 14, I was awakened by the booming of cannon, and learned that the enemy were endeavoring to regain their lost position. After a hasty breakfast, I began to visit the field-hospitals, to produce anesthesia where capital operations were to be performed. The wounded were brought to these field-hospitals by the newly organized ambulance corps of their respective divisions. When there was any heavy firing heard the ambulance corps, with its attendants, stationed nearest to the scene of action, started for the wounded. The ambulances were halted near by, and the attendants went in with stretchers to bring out the wounded. The rebels did not generally fire on those wearing the ambulance badges.

On the arrival of a train of ambulances at a field-hospital the wounds were hastily examined, and those who could bear the journey were sent at once to Fredericksburg. The nature of the operations to be performed on the others was then decided on, and noted on a bit of paper pinned to the pillow or roll of blanket under each patient's head. When this had been done I prepared the patients for the knife, producing perfect anesthesia in an average time of three minutes, and the operators followed, performing their operations with dexterous skill, while the dressers in their turn bound up the stumps. It was surprising to see with what dexterity and rapidity surgical operations were performed by scores in the same time really taken up with one case in peaceful regions.

When I had finished my professional duties at one hospital, I would ride to another, first arranging at what hour I would next return. In the garden of one house used as a hospital I noticed over twenty lifeless and mangled forms, bloody and ghastly—men without heads, heads without bodies, hands wanting arms. Some had died with fierce expressions on their faces; others who passed quietly from the stormy shores of time to the realms of eternal peace. The dead are buried where they fall, or near the hospitals in which they die. Their names are carefully written on wooden headboards, and entered into registers.

Early on the morning of Wednesday, May 18, the whizzing of shells announced that the second and great battle of Spottsylvania Court House had been commenced. It was four o'clock a. m. when the Union skirmishers advanced. The rebels were there, armed and vigilant. Both sides opened with cannon. Smoke and mist hung pale, heavy and motionless over the troops. On the right was Gibbons' First division. The Irish Legion had just joined them. They had seen some service on the Blackwater and Nansemond rivers, near Suffolk, during the investment of that place by Longstreet, but had never known the reality of a battle.

On the right, the Irish Legion charged with a fierce, wild shout. Two hundred yards of clear field had to be traversed before the first line of the enemy's breastworks could be reached; a battery of four brass pieces played on our men incessantly as they advanced on a double quick. All this time the sharpshooters were busy; sufficient light was lacking to enable them to sight their pieces with precision, but many an officer owes his death to their marksmanship.

At last the field is crossed. The distance was short—only two hundred yards. Who does not believe it seemed a lifetime to many of those men, who, with bent body and erect bayonet, won their perilous way, foot by foot, through whistling balls, bursting shells, gnawing grape. The rebels fly from the first entrenched line. Our brave fellows clamber over cheerily and capture a few dilatory sharpshooters, who lingered too long at their post. About midway between the first and second parallels, the line of the legion grows confused—their pace waxes slow by degrees, and finally halts, preparatory to breaking—to retreating.

They did fall back a short distance, but the veterans of the old First and Second divisions were at hand. They took no notice of confusion, and heeded the driving bullets no more than a pelting rain. Through the pines they ran, with fixed bayonets, searching in vain for the rebels. A shout rent the air, and the second line of breastworks was won. The rifle pits in front were those which had been abandoned by us; but they were filled with rebel sharpshooters, who were soon dislodged and driven through a second line and behind a thick and impenetrable abattis, which was of a most formidable character. On examination it was deemed best not to attempt charging through this barrier, and the troops fell back in good order, although exposed to a galling fire of shell and canister from both flanks.

The sun went down red. The smoke of the battle of more than two hundred thousand men destroying each other with villainous saltpeter through all the long hours of a long day, filled the valleys, and rested on the hills of all this wilderness, hung in lurid haze all around the horizon, and built a dense canopy overhead, beneath which this grand army of freedom was preparing to rest against the morrow.

On Thursday, May 19, I learned confidentially that General Grant intended to swing around toward Richmond, and I determined that I would swing around toward Washington, where imperative business before Congress demanded my presence. Before leaving I rode with a friend along the entire front of the Union line, an undertaking that at any time before would have been attended with too much peril to make the excitement compensate for the personal risk it involved. The life of our soldiers in intrenchments affords a theme on which a chapter might be written. I could with difficulty imagine that a few hundred yards only intervened between them and a foe as impassible as it is unyielding. Here were groups of officers chatting, writing letters and reading, and all along were privates making and drinking coffee, card playing and talking over the incidents of the late battle through which they had passed thus untouched by rebel bullet or shell. But all were ready to spring in an instant to musket or cannon.

From a house used as a signal station, and with the aid of a powerful telescope, I could see the enemy's works, a battery of sixteen guns, commanding the very place where I stood. These were only a small portion of the artillery they had posted and waiting for us. Their first line of works was firmly sodded on the outside, showing that it had been built for some time. At intervals were fox or rifle pits for sharpshooters. The line in our immediate front was a mile and a half long, and formed the arc of a circle. Behind this were two other lines, mainly under cover of woods. A captured rebel officer says that after the battle of Gettysburg from fifteen to twenty thousand men were employed constructing these works, and others between here and Richmond, to cut off any approaches, in the future, of our army on their capital. The chosen position was on a commanding ridge, and to the right and left densely wooded, leaving an open field in front over which they doubtless hoped General Grant would advance to attack them. But the general chose instead to make a flank movement rather than to lose thousands by an assault. Leaving the front on Friday, May 20, to return to Fredericksburg, I passed train after train of ambulances and wagons laden with the wounded, some groaning and writhing in anguish, but none complaining.

I saw at Fredericksburg a number of our wounded, left behind in the Battle of the Wilderness, but brought in by a detachment sent after them. Never were a set of men more rejoiced than were these poor sufferers on seeing our men come to rescue them. They had been left with a few surgeons and attendants, and supplies for a number of days, but some roving squad of rebel cavalry who came in shortly after our departure, helped themselves freely to sugar, salt, hard tack and whatever else they wanted. Had our poor men been left there a day or two longer they must have died of starvation.

Some time after the arrival of the squad above mentioned, Hampton's Legion of cavalry arrived, and its commanding officer promptly placed a guard over the hospitals and declared nothing more should be taken, yet his men took all the sugar and coffee they could find in the haversacks of dead or wounded. Dr. Armstrong, of the Eleventh Virginia cavalry, dressed the wounds of our men, and showed them great kindness, for which act of humanity his name deserves honorable mention.

I found Fredericksburg as I had left it—one vast hospital. But during the week of my absence great changes for the better had been made. Wounded men arriving covered with dust and blood, weary and faint, were placed in the hands of the nurses in the wards they were to occupy; their tattered garments, as they often are, removed, the purifying and soothing application of a warm bath made, the wound is examined and ministered to by the surgeon in attendance, and, arrayed in clean and suitable apparel, the patient was placed gently on a hospital couch with bedding well aired and clean. The process was similar in the case of all who were brought in. There is no crowding, no confusion. Each ward had its designated number of occupants, its number of nurses—one nurse being usually assigned to ten men, while the surgeons had from eighty to a hundred patients assigned as the complement of each. This arrangement secured good and sufficient attention to the patients in all cases where those having charge showed ordinary intelligence and fidelity.

The patients appeared cheerful and patriotically happy. A shot in the arm, or leg, or side, or shoulder, had prostrated many of them. Sometimes a bandaged brow or jaw suggested a tale which told itself, and occasionally a woefully attenuated form spoke of wasting illness. But almost every occupant of the long rows of beds was in the very best of spirits, cheerful in the memory of duty done, and exultant in the prospect of that which is to be consummated. What was particularly noticeable in these soldiers was their modesty in speaking of themselves, their generosity in mentioning their comrades. They could scarcely be brought to dwell on their own exploits and disasters, and reverted with the brave fondness of military devotion to those of the men with whom they had battled side by side. These soldiers of the Union are as enduring on the sick bed as they are valiant in the field. They do not whine nor grumble. .

General Grant having decided to evacuate Fredericksburg, the wounded were removed to Washington in steamers. . . . The scene at the Washington wharf was a painfully interesting one. The high bluffs commanding a view of the landing were thronged with women and children, all in attitudes of expectation and anxiety. The entrance to the gangway was similarly beset. The gangway itself was lined with groups inquiring for friends or relations, or administering to the wants of wounded soldiers. At the end of the wharf long tables were spread with such refreshments as might be required by the suffering men, and ladies and gentlemen in the service of the Sanitary Commission busied themselves in ministering to their wants. As a general rule, the wounded bear their sufferings with almost stoical firmness. Hardly a groan was heard as they were borne along the wharf on stretchers to the ambulances, although the nature of the wounds of many must have rendered the least movement extremely painful.

Time will not enable me to describe the scores of hospitals in and around Washington, where tens of thousands of unflinching heroes have received and are receiving the nation's choicest care. The minister of the gospel, the surgeon, the philanthropist and the devoted loyal women of the metropolis vie with each other in giving their time to these wounded soldiers. The poor fellows receive tender nursing, watchful guardianship by day and by night, and all the kindly ministrations that gratitude and affection can suggest.

The hospital heroes, suffering as they do, do not lead a blank, complaining life. The invalids arranged along the extensive vistas of the wards, sprinkle with numberless jokes the surface of serious conversation. Each, in spirit at least, "shoulders his crutch and shows how fields were won." Some of the wounds reported as slight are fearful enough to make the patient wince and the beholder shudder. The budding spring is too green and pleasant, the air too golden and balmy, to be in complete accordance with a scene like this. The windows and doors are wide open, and the gentle breeze streams through. The blue of the sky and the green of the meadow are mutually harmonious in beauty, and it is this which makes us feel there is such a dissonance between the scene without and that within.

As to the hospital fare, concerning which complaints are sometimes made through the papers, perhaps not always without reason, the wants of the invalids are certainly provided for, as far as may be, in a wholesome and substantial way. Luxuries and various delicacies are not to be looked for, of course.

Plain vegetables, such as potatoes, turnips, cabbage and onions, are furnished, with good bread, and, if obtainable, good butter, rice, hominy, milk, tea and coffee, fresh beef, soups, bacon, with eggs, chicken, and custard or pudding occasionally for extremely delicate palates. Many hospitals, indeed, have a less varied bill of fare than this, particularly at certain seasons of the year, when several of these articles are scarce and to be procured only at great pains and cost. But most well-managed hospitals can point to such a variety as evidence of the liberal provision made by the government for those who have been disabled in its service. In addition to this the ample stores of those grand voluntary agencies, the Sanitary and Christian commissions, are freely opened to the constant applications made by the hospitals in behalf of their inmates. These commissions furnish to the sick a great variety of articles which the government does not furnish. Jellies, canned fruits, jams, domestic wines, cordials, lemons, may serve as a sample of the various provision flowing to stanch the soldier's wounds and soothe his sorrow, from the inexhaustible fountain of sympathizing hearts at home. Warm garments to cheer him in winter, light, loose garments to promote his ease and comfort in summer, reach the soldier to gladden him, from the same source. Indeed, this love to the poor soldier, gushing forth still buoyant, tireless, irrepressible in these grand benefactions from countless home circles over the land, forms one of the sublimest spectacles of the day. It is a mighty power, too, in this struggle, that is doing more at this moment to strengthen the government and make its trying work successful, than any amount of brute force with all "war's dreadful enginery" to back it.

While I have endeavored to describe to you the mighty struggles of the Wilderness and of Spottsylvania Court House, I have also desired to demonstrate that the wounded soldier is well cared for. Countless home circles from which the young, and noble, and tenderly-endeared have gone forth in the cause of an imperiled country, may be relieved from the anguish of feeling that their loved ones, prostrated by bullet or disease, are left unregarded or without proper care and attention, to bleed, languish and die. The government has guarded with anxious vigilance against all this. Its paternal care has taken, all over the land, the form of a beautiful system of means and appliances aiming at the relief, comfort and healing of the maimed and war bruised. And the soldier's kin and friends may feel and know, and take comfort as they do so, that if the fate of war should number their most cherished ones among the hosts whom sickness seizes or bullets pierce, they will find on the hospital couch the ministry of kind and skillful hands to soothe and mitigate their pangs, and, if God will, win them back to health.

For myself, I am repaid for the anxiety and often wretchedness which I have experienced since I first discovered and introduced the anesthetic qualities of sulphuric ether, by the consciousness that I have thus been the instrument of averting pain from thousands and thousands of maimed and lacerated heroes, who have calmly rested in a state of anesthesia while undergoing surgical operations, which would otherwise have given them intense torture. They are worthy of a nation's gratitude—happy am I to have alleviated their sufferings. For the dead heroes we mourn—but let all the patriotic benevolence, and science, and philanthropy of the republic be brought into requisition for the benefit of the wounded.

THE INTRACELLULAR TOXIN OF BACILLUS PYOCYANEUS.[*]

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The object of this research was to ascertain whether or not *Bacillus pyocyaneus* contains an intracellular toxin. Some years ago Buchner obtained from this organism a large quantity of a pyogenetic proteid. He took the germ substance from potato cultures, rubbed it up with water and then treated it with about fifty volumes of a 0.5 per cent. solution of caustic potash. This formed in the cold a mucilaginous mass, which dissolved at the temperature of the water bath and after being heated for several hours was filtered and acidified with acetic or hydrochloric acid. The acid threw down a precipitate, which was collected, washed with water, and was injected subcutaneously into animals. It was also placed in sterilized spindle-shaped glass tubes, and introduced under aseptic precautions under the skin of rabbits. After from two to three days the tubes were removed and found to contain, in addition to some of the proteid, several cubic millimeters of fibrinous pus, which proved to be sterile.

In 1889, Charrin and Roger, working with *Bacillus pyocyaneus,* made the experiments which may be said to be the starting point of all subsequent work on agglutination. These facts made it desirable to ascertain whether or not this organism contains an intracellular toxin.

My own work may be summarized as follows: Pure cultures were grown in the large tanks used in this laboratory, and after fourteen days, the germ substance was removed from the agar, precipitated with alcohol, collected on a hard filter and extracted with alcohol and ether. The toxicity of the germ substance for guinea-pigs is shown in Table 1.

TABLE 1.—THE TOXICITY OF THE POWDERED GERM SUBSTANCE OF BACILLUS PYOCYANEUS WHEN INJECTED INTRAPERITONEALLY INTO GUINEA-PIGS.

Protocol Number	Weight.	Amount Injected, mg.	Results.	Hours.	Proportion of Toxin to Body Weight.
1	215	43 00	+	12	1 to 5,000
2	250	50 00	+	12	
			(2 + in 12 hours.)		
3	230	23 00	+	12	1 to 10,000
4	190	19 00	+	12	
			(2 + in 12 hours.)		
5	290	14 50	+	12	1 to 20,000
6	190	9 50	+	12	
			(2 + in 12 hours.)		
27	180	4 50	+	12	1 to 40,000
28	195	4 86	+	12	
			(2 + in 12 hours.)		
21	200	4 44	+	12	1 to 45,000
22	245	5 44	+	12	
			(2 + in 12 hours.)		
7	250	5 00	+	12	1 to 50,000
8	230	4 60	+	12	
17	220	4 40	+	12	
18	210	4 20	+	12	
			(4 + in 12 hours.)		
15	240	4 36	—		1 to 55,000
16	230	4 18	—		
19	235	4 27	+	24	
20	240	4.36	—		
			(1 + in 24 hours; 3 —.)		
23	180	3 00	—		1 to 60,000
24	215	3 54	—		
13	190	3 166	—		
14	265	4 401	+	24	
			(1 + 24 hours; 3 —.)		
25	210	3 23			1 to 65,000
26	305	4.69	+	24	
11	210	3 23	—		
12	220	3 384	+	12	
			(2 + in 12 to 24 hours; 2 —.)		
9	315	4 20	—		1 to 75,000
10	260	3 466	—		
			(2 —.)		

It will be seen from Table 1 that the powdered germ substance of *Bacillus pyocyaneus* is surely fatal to guinea-pigs when injected intraperitoneally in the proportion of 1 part to 50,000 parts of body weight.

When injected subcutaneously in guinea-pigs, even in as large a quantity as 1 part of the toxin to 10,000 of body weight, the only inconvenience that resulted was a slight swelling at the point of inoculation, followed by temporary loss of weight. Subcutaneous injections did not give immunity to subsequent intraperitoneal treatments.

These results show that the toxin is not destroyed, although it is slightly diminished at the temperatures given in the tables.

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[*] This paper and the two which follow are from a series of studies of bacterial cells, research in the Hygienic Laboratory of the University of Michigan, 1903.

TABLE 2.—Toxicity of the Germ Substance of Bacillus Pyocyaneus Injected Intraperitoneally Into Guinea-Pigs After Being Heated.

Number.	Weight.	jected, mg.	Results.	Hours.	Proportion to body weight.
30	240	4.40	+	12	1 to 45,000
29	180	4.50	+	12	1 to 40,000
30	240	4.40	+	12	1 to 45,000
31	140	2.80	+	12	1 to 50,000
(30 minutes at 75 C.)		(3 + in 12 hours.)			
32	250	5.00	+	12	1 to 50,000
33	230	4.60	+	12	
34	225	5.00	+	12	30 minutes
35	245	6.10	+	12	at 100 C.
		(4 + in 12 hours.)			
36	220	4.40	—		1 to 50,000
41	190	3.80	+	12	
37	190	4.20	+	12	1 to 45,000
40	230	5.11	+	12	
38	240	6.00	+	18 days.	1 to 40,000
39	205	5.12	+	12	
(30 minutes at 110 C.)		(5 + in 12 hours to 18 days, 1 —.)			
44	245	4.9	+	18	1 to 50,000
45	250	5.00	—		
47	235	5.22	+ -	18	1 to· 45,000
43	225	5.00	+	18	
42	200	5.00	+	16 days	1 to 40,000
46	220	5.50	+	12	
(30 minutes at 120 C.)		(5 + in 12 hours to 16 days, 1 —.)			

The intracellular toxin can not be extracted, at least, not in appreciable quantity, by physiologic salt solution; 100 mg. of the germ substance was suspended in 50 c.c. of physiologic salt solution, placed in a sealed tube, and vigorously agitated in a mechanical shaker for twelve hours, at the end of which time the emulsion was filtered through heavy Swedish filter paper, and the filtrate found to be without toxic effect. This is found to be true, whether the germ substance was freshly taken from agar cultures or had been previously extracted with alcohol and ether.

When the germ substance was extracted with 1 per cent. of sulphuric acid and this extract treated with absolute alcohol, a precipitate was obtained. This precipitate, after having been washed until the washings were free from acid, dried and injected into animals, proved to be toxic, but much less so than the original germ substance.

While no appreciable amount of toxin could be obtained from the cell substance, a hemolytic body was extracted with physiologic salt solution; 100 mg. of the germ substance which had been hardened by the action of alcohol and ether, was suspended in 50 c.c. of physiologic salt solution and agitated for twelve hours, after which it was filtered through heavy Swedish paper. To three tubes containing each 10 c.c. of a 5 per cent. solution of defibrinated blood, the following quantities of physiologic salt solution extract of the germ substance were added:

Tube 1 received 10 c.c. of the extract.
Tube 2 received 1 c.c. of the extract.
Tube 3 received 0.1 c.c. of the extract.

These tubes were placed in the incubator for twenty-four hours, at the end of which time complete hemolysis had occurred in Tube 1. In Tube 2, about one-third of the blood had been dissolved, while in Tube 3 the hemolytic action was found to be very slight.

The hemolytic substance was also extracted from the unhardened fresh germ. Some of this germ substance was shaken with physiologic salt solution for twelve hours and then passed through a Berkefeld filter; 13 c.c of this filtrate was found to completely dissolve all the blood corpuscles in 10 c.c. of a 5 per cent. blood solution in twenty-four hours at incubator temperature.

My conclusions may be stated as follows:

1. *Bacillus pyocyaneus* does contain an intracellular toxin.
2. This toxin can not be extracted from the cell by physiologic salt solution. It is in part extracted by dilute sulphuric acid.
3. Heat to 120 C. in the autoclave continued for thirty minutes only slightly diminishes the toxicity of the cell substance.
4. The cell substance of *Bacillus pyocyaneus* contains a hemolysin, which may be extracted from the cell, either in the fresh state or after treatment with alcohol and ether by physiologic salt solution.
5. The minimum lethal dose of the cellular toxin is for guinea-pigs when given intraperitoneally about 1 part of the cell substance to 50,000 parts of body weight.
6. When injected subcutaneously in guinea-pigs in the proportion of 1 part of the cell substance to 10,000 parts of body weight or less no permanent ill effect results.
7. Subcutaneous injections do not give immunity to subsequent intraperitoneal injections.

THE EFFECT OF PUTREFACTIVE BODIES ON THE CHEMICAL TESTS FOR MORPHIN.*

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In at least three important trials for murder, the possibility of putrefactive products being mistaken for morphin has arisen. The first of these was the Sonzogna trial at Cremona, Italy, in which it is probable that the experts confounded a putrefactive body with morphin. This substance was extracted from either alkaline or acid solutions with ether, but could not be removed with amylic alcohol. It reduced iodic acid, but in its other reactions, also in its physiologic properties, it bore no close resemblance to morphin. In the Buchanan case in New York every test for morphin was duplicated with putrefactive products, so that the distinguished chemists present were not able to tell which of the two portions contained the alkaloid. In the case of Dr. Urbino de Freitas of Oporto, Portugal, who was accused of attempting the wholesale murder of his wife's family by the administration of morphin, the toxicologists who investigated the case relied for the detection of this alkaloid on the color reactions applied to residues obtained by following Dragendorff's method. The chemists reported not only morphin, but narcein and probably delphinin. The defense questioned the reliability of the tests used, and many of the most prominent toxicologists of Europe became more or less involved in the controversy.

These cases are enough to illustrate the desirability of further investigation along this line. Many methods have been suggested for the extraction of morphin in medicolegal cases, without confounding it with any putrefactive body. The best of these methods is that advanced by Kippenberger, who holds that the alkaloidal tannates are soluble in glycerin, while the putrefactive bodies likely to interfere with the tests for morphin are insoluble in this agent. A careful reading of Kippenberger's paper shows that this statement does not rest on any extensive experiments. The method of work in the investigation herewith reported may be described as follows: Six liter flasks were cleaned, rinsed with distilled water, and in each of these there was placed 500 gm. of chopped beef liver and 1,000 c.c. of distilled water. These flasks were then placed in the autoclave and sterilized at 120 C. for forty-five minutes. After having been heated, the flasks were allowed to stand at room temperature for twenty-four hours, when their sterility was proven by inoculating tubes of beef tea with material from each flask. After this these flasks were treated as follows:

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* See note to previous paper.

No. 1 was inoculated with *Bacillus pyocyaneus;* No. 2 was treated with 100 mg. of morphin and then inoculated with *Bacillus pyocyaneus;* No. 3 was treated with 200 mg. of morphin and then inoculated with *Bacillus pyocyaneus;* No. 4 was inoculated with *Bacillus coli communis;* No. 5 was inoculated with *Bacillus coli communis* and treated with 100 mg. of morphin; No. 6 was treated with 200 mg. of morphin and inoculated with *Bacillus coli communis.*

All of these flasks were then placed in the incubator at 37 C., where they were kept for two weeks. At the expiration of this time they were all autoclaved at 120 C. for forty-five minutes. A 2 per cent. solution of tannic acid in glycerin was poured into each flask in an amount equal to the mass therein contained. The flasks were then placed in an incubator and kept for forty-eight hours at 40 C. Then the flasks were removed from the incubator, the contents strained through muslin, and the filtrate heated on a water bath at 60 C. for one-half hour in order to bring down the coagulable proteids. After filtration through paper the filtrates were shaken with twice their volumes of petroleum ether. After separation of the ether the material was heated in order to drive off traces of the solvent, and then rendered slightly alkaline with sodium hydrate and shaken with chloroform. The chloroform extract from each flask promptly reduced iodic acid and potassium permanganate. Like results were obtained with amylic alcohol extracts from an alkaline mixture. None of these residues gave either the ferric chlorid or the Froehde test for morphin in a satisfactory manner. Great difficulty was experienced in obtaining clean pure residues. This was true with both the chloroform and amylic alcohol extracts, and it was found to be necessary to repeatedly take up the residues with water slightly acidulated with acetic acid, and again render alkaline and shake with the solvent. Crystalline residues were finally obtained from only two flasks, one of which contained morphin, while the other did not. The crystals in both of these cases seemed identical microscopically with those obtained from an alkaline solution of morphin shaken with chloroform, and the chloroform extract evaporated. The crystalline residue was so small in amount that the possibility of determining the melting point was excluded.

It must be evident from these results that a satisfactory method of extracting morphin in medicolegal examinations is not furnished by Kippenberger.

THE EXTRACTION OF A TOXIN FROM LIVER CELLS.

A PRELIMINARY REPORT.*

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AND
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The liver of an ox, just after the animal had been slaughtered, was obtained and passed through a sausage machine, finely dividing the structure and removing a considerable portion of the connective tissue. This finely divided material was stirred up with five times its volume of 1 per cent. sulphuric acid, and the mixture was heated for three hours and thirty minutes in the water bath at a temperature of 81 C. Then it was heated for three hours longer over the direct flame at 100 C. and filtered. The filtrate proved to be a clear, light amber-colored fluid, which was added drop by drop to three volumes of 95 per cent. alcohol, with constant stirring. The precipitate which formed was collected on a hard filter, washed with alcohol, and then dissolved in a minimum amount of water. This solution was again precipitated by adding it drop by drop to three times its volume of 95 per cent. alcohol. This precipitate was washed with alcohol and ether, then redissolved in distilled water. This process was repeated until the aqueous solution failed to give a test for sulphuric acid with dimethylamidoazobenzol. The substance thus obtained was dried in vacuo and ground, first in a porcelain and then in an agate mortar.

The cleavage product thus obtained, when dissolved in water and injected intraperitoneally into guinea-pigs and rabbits, kills the animal when the proportion is 1 part of the extract to 500 parts of body weight. When used in smaller quantities there is more or less marked emaciation, depending on the quantity injected, from which the animal recovers very slowly. So far we have not been able to secure any marked degree of immunity by beginning with small doses and gradually increasing the quantity.

After acute poisoning with the quantity above mentioned, postmortem examination shows the liver of the dead animal to be deeply congested. The spleen is soft and mottled, with dark and pale red spots. The kidneys show no gross changes, but the adrenals are markedly congested. The gastric and mesenteric vessels are greatly dilated, and there are frequently found small hemorrhagic areas under the peritoneum. We are now engaged in studying the effects of very small doses frequently repeated on the structure of the liver and other organs.

A METHOD OF MICROSCOPIC OBSERVATION BY MEANS OF LATERAL ILLUMINATION.

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INTRODUCTION.

Last year two German physicists, Siedentopf and Zsigmondy, published an article[1] in which they described an apparatus for the observation of ultramicroscopic particles. The object which they selected for examination consisted of a piece of glass through which was diffused uniformly particles of metallic gold in a very fine state of division. By means of a powerful light—either the sun or an electric arc—passed through a complicated system of condensers, a very small but exceedingly intense focus of illumination was obtained. The piece of glass containing the gold was placed in this focus so that the light entered the glass from the side. It was then observed with an ordinary microscope from above. By this arrangement none of the light entered the microscope directly. To the naked eye, or with the ordinary microscope, the glass appeared perfectly homogeneous. But by this special illumination the individual particles of gold so reflected and refracted the light that they could be observed as distinct luminous points. This being the only light that entered the microscope, the particles appeared as bright points against a dark background.

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* See note to paper of Dr. MacIntyre.

[1] Annalen der Physik., 1903, x, 1.

Three conditions are necessary for seeing particles: First, they must not be beyond the limits of visibility of the apparatus; second, they must not be too near together, about 0.25 micron being the necessary distance in order to distinguish them from one another; third, they must have an index of refraction different from that of the surrounding media.

Siedentopf and Zsigmondy were able to calculate the size of the particles observed. Knowing the amount of gold in the glass, and then counting the number of particles seen under the microscope in a definite volume of the glass, the size of the particles could readily be calculated. They found that they could see particles as small as 0.005 micron and even smaller. This is within the limits of the size of molecules, as calculated by Van der Waals and others. Since the limit of observation had been placed by Helmholtz at about 0.2 micron, a tremendous stride was taken in reducing the limits of visibility. These authors also made observations on colloidal solutions. Mouton[2] later suggested the application of this method to bacteriologic problems.

Since then Raehlman[3] has been continuing the work. He has reported observations on colloids, sugars, glycogen, dyes, etc., in which in high dilutions numerous small particles with characteristic movements may be observed. Also he has been able to see organisms with progressive motion in filtered putrefying liquids.

Mouton and Cotton,[4] following the work of Siedentopf and Zsigmondy, suggested a modification of the method described above. This consisted in passing a concentrated pencil of light, emanating from a Nernst lamp, through a suitable piece of glass in such a way that the light is totally reflected from the upper surface of the glass or the upper surface of a cover-slip placed on it. When such a piece of glass is placed under the microscope no light will pass directly into the tube of the instrument, and any particles in the glass or between the glass and cover-slip will become illuminated and can be directly observed. They very briefly reported a few preliminary observations made at that time.

Last fall, at the suggestion of Professor Hektoen, I attempted to set up an apparatus following the fundamental idea suggested by Mouton and Cotton.

DESCRIPTION OF APPARATUS.

The source of light used is a Nernst lamp. This is a non-vacuum electric lamp, which can be screwed into an ordinary incandescent light socket. The current passes through a short filament composed largely of metallic oxids, such as magnesium, zirconium, cesium, and which consequently emits a very intense white light when raised to the proper temperature. The glass globe of the lamp is covered with lampblack on the inside, except a small round area about 0.5 cm. in diameter at its vertex. This black is used to prevent all reflection of light from the inside of the globe. In this manner we have a pencil of rays passing through the clear area at the vertex of the globe and coming from a small but intense source of light. This pencil is now passed through a condenser. For this purpose a low-power objective is very suitable and convenient. I have used one the focal distance of which is about 1 cm.

The essential part of the apparatus consists of a triangular glass prism properly supported and so placed beneath the objective of a microscope that its upper surface is horizontal. The light coming from the condenser is directed from below obliquely upward and enters the prism at right angles to one of its lateral surfaces. It passes to the upper surface of the prism and is there totally reflected and passes out through the other side of the prism. A clear conception of this arrangement is easily obtained by reference to the diagram (Fig. 1). In order that total reflection shall occur at the upper surface of the prism, it is necessary that the angle *x* made by the incident ray and the perpendicular drawn to the surface at the same point, be of a certain magnitude. Otherwise the rays will simply be refracted at the upper surface. For glass and air the magnitude of this angle, known as the critical angle, is about 41 degrees. If it is greater than this total reflection occurs; if less, the rays pass through the upper surface and are simply refracted. Therefore, for our purpose, the angle *x* must always be greater than 41 degrees. This is very important, for if there is not total reflection some of the light directly enters the microscope. Now it is also necessary that the light should enter the surface *bc* at right angles, or approximately so, for otherwise there will be troublesome refraction here. It can be seen, therefore, that the magnitude of the angle *b* of the prism is very important, since it is always equal to angle *x*, as can be readily shown geometrically, provided the ray of light enters the surface *bc* at right angles. It therefore follows that if angle *b* is less than 41 degrees total reflection will not occur.

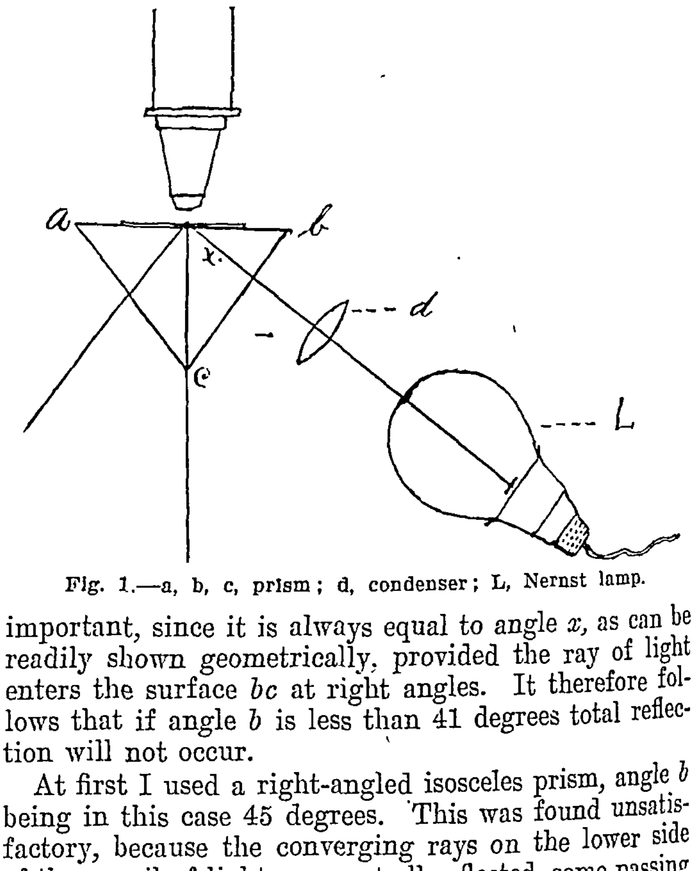

Fig. 1.—a, b, c, prism; d, condenser; L, Nernst lamp.

At first I used a right-angled isosceles prism, angle *b* being in this case 45 degrees. This was found unsatisfactory, because the converging rays on the lower side of the pencil of light were not all reflected, some passing through the surface and into the microscope above. I have, therefore, resorted to the use of an equilateral triangular prism, each angle being 60 degrees. This fulfills the necessary conditions.

For the examination of any fluid a drop or two is placed directly on the prism and a cover-slip applied. Or the fluid can be mounted with a cover-slip on a glass slide in the ordinary way, and the slide placed on the prism and separated from it by cedar oil or any substance with about the same index of refraction as the glass. The former method is much more convenient. Under these conditions the light passes through the fluid to the upper surface of the cover-slip and is then totally reflected. Any particles in the fluid in the path of the light will be made visible by the light which they reflect and refract, enlarged also by diffraction. Also the phenomenon of irradiation operates here to cause the luminous particles to appear larger than they really are. It is only this light, therefore, which enters the microscope, and it can be readily seen why it is so necessary to exclude all other light. We see in the field of the microscope the particles as bright points of light against a dark background; hence the appearance which has been likened to the stars in the heavens.

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[2] Bull. de l'Institut Pasteur, 1903, i, 97.

[3] Münchener med. Woch., No. 48, 1903, also No. 2, 1904.

[4] Comptes Rendus de l'Acad. des Sciences, No. 26, 1903.

Attention should be called to the fact that it is necessary to have the prism surface and the surfaces of the cover-glass as nearly perfect as possible. Unfortunately a perfect surface can not be obtained. Every defect in the glass surfaces or in the glass itself, however slight, scatters the light, and, therefore, interferes with the observations. With the best cover-slips carefully cleaned and the surface of the prism polished, this difficulty is reduced to a minimum and is not serious.

SOME PRELIMINARY OBSERVATIONS.

I have made a number of preliminary observations on different substances largely to obtain some idea of the possibilities of the apparatus and also to become familiar with the appearances of various fluids and particles in order to be better able to interpret them when seen under various conditions. I have gone through exactly the same experience a novice goes through when first learning to use an ordinary microscope. It is necessary first to become familiar with the appearance of ordinary air bubbles, slight defects in the cover-glass and débris of different kinds, cells, etc. However, with a little experience, it is remarkable how easily such objects may be differentiated, considering the fact that they are only seen by lateral illumination.

Metallic colloidal solutions afford an interesting study. It is ordinarily stated that the particles suspended in these solutions are too small to be observed with the highest power of the microscope. Ehrenhaft[5] says that such particles are about 0.5 micron in diameter. I have used solutions of platinum and silver made according to the method of Bredig by forcing the metal from the cathode by means of a powerful electric spark under double distilled water. Such solutions when examined in the light show numerous bright particles, all undergoing a rapid vibratory motion. They are by no means all of the same size, varying from particles large enough to be seen with a one-twelfth oil immersion to particles so fine that they can be just observed as the faintest points of light. Colloidal silver particles in the solution which I have examined are, on the whole, larger than platinum particles and slightly more active. The silver particles also vary in color. Three distinct tints are seen—red, white and green. I have examined three different platinum solutions and I have found the different solutions to vary somewhat in the size of the particles. This may depend on the strength of the current used in making the solutions, though I have made no observations to test this.

Many of the particles are held back by filtering through a porcelain filter. The particles are then less numerous, and, on the whole, are finer. Colloidal solutions of arsenic sulphid are also very interesting. I prepared solutions of the α, β and γ sulphids as described by Picton and Linder.[6] The particles in the α and β solutions could be seen, but not those of the γ solution. On account of the greenish-yellow color of the particles and their vibratory motion a field of exquisite beauty is presented to the eye.

Of great interest is the study of animal fluids, such as serum, exudates, milk, cerebrospinal fluid, etc.

Perfectly clear blood serum which has been centrifugated shows an immense number of particles. They vary in size and have a rapid vibratory motion. Differences in the number and general appearance of the particles have been observed in sera obtained from different sources. The significance of such variations is entirely undetermined; they are certainly very suggestive.

After filtering serum through a porcelain filter the number of particles is very considerably diminished. On heating serum to about 56 C. for a few hours, a noticeable increase in the number of the particles occurs. They also appear slightly larger. This may be interpreted as a process of coagulation slowly occurring under these conditions. At room temperature also the serum changes in much the same way as at 56 C., but very much slower, the serum at 56 C. changing as much in a few hours as that at room temperature in several days. Serum kept in the ice box for two days showed no changes. These observations must be made with the serum much diluted with salt solution.

Exudates such as pericardial and ascites fluid, etc., vary very much in their appearance according to their nature. They show numerous particles—often large flakes of albumin and cells of various kinds. I have made only a few observations on such fluids.

ORGANISMS.

Micro-organisms furnish the most attractive field of any yet suggested for study by the method. Bacteria are seen as bright points of light and present an interesting sight as they tumble about in the fluid or appear in rapid motion. The method suggests itself at once as a favorable one for observing and determining motility of organisms. A few observations on typhoid bacilli have been made. They appear in rapid motion as bright points of light traversing the field in all directions, and often remind one of a display of fireworks.

The method can be applied also for observing the decrease in motility and the clumping of organisms in agglutinative tests, and I believe that it is superior to the ordinary methods used in determining the motility of bacteria.

Where the flagella are numerous, as in typhoid bacilli, they, on account of their rapid motion, appear as an indefinite flurry about the body of the organism. I have not succeeded in getting a clear picture of the flagella of the organisms when at rest.

In considering the application of this method to the study of organisms, one naturally thinks at once of the possibilities of observing the ultramicroscopic organisms for the existence of which very strong evidence has accumulated. One serious difficulty in this direction is to differentiate an organism from other particles which are usually present. If it is motile then the difficulty disappears at once. Here an excellent field opens up for the study of a number of diseases, the virus of which is known to pass through porcelain filters. For those organisms which are not motile the problem is not so easy. For example, the peripneumonia organism is just at the limit of visibility for the highest power of our best microscopes. It grows well in beef-serum bouillon, as shown by the gradual clouding of the medium after a few days. A culture of this organism was obtained from the Pasteur Institute of Paris and the organisms studied in growing culture. There was a gradual increase in the number of particles from day to day, and undoubtedly most of these were the peripneumonia organisms. But some of the particles I am sure were not organisms, for they were too large and varied too much in size. These particles unquestionably were formed as a result of changes occurring in the medium due to the growth of the microbe. The organisms, not being motile, can not be distinguished clearly from other particles which may be present. However, uniformity in the size of the particles and distinctness in their appearance speak in favor of their being organisms rather than particles of proteid or other material. In dealing, then, with these extremely small organisms, the observations must be controlled most carefully.

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[5] Zeitschrift für physik. Chem., Oct. 31, 1903.

[6] Trans. Chem. Soc., London, 1892 and 1895.

Sections of tissue are not suited for the application of this method. In teased specimens, however, one can observe striation in muscle and the course of fibers in brain tissue. I could observe nerve fibers ramifying between cells, and in several instances I was able to see clearly the axis cylinder coming from the nerve cell and to trace it for some distance. The method may be of some value in studying the branching of the nerve fibers.

POSSIBILITIES AND LIMITATIONS.

The possibilities and limitations of the apparatus described here can only be determined by a large number of observations. New methods usually fail to meet all our predictions, yet they often become of service in some manner entirely unforeseen at first. The progress of science depends very largely on the development of new methods of technic, and consequently all such methods should be most thoroughly investigated before being discarded.

There is undoubtedly a large field for the application of this method in studying the structure of that important class of substances known as colloids, both organic and inorganic. This will include such substances as toxins, antitoxins, ferments and the like. The work already done by Raehlman is extremely suggestive, and indicates a most important field for further study.

Emphasis must be placed on the fact that the value of the method is by no means limited to the study of ultramicroscopic particles. One of its greatest uses will be to observe particles or objects, not too small to be seen by our ordinary microscopes, but which, owing to their slight refractive properties, can not now be seen by our present methods. Because of the property of this method of bringing out slight differences of refraction, I am inclined to believe it will replace, for many purposes, at least, the hanging-drop. That we can see objects not seen in the hanging-drop is illustrated nicely by the fact that red blood corpuscles in dilute acetic acid can not be seen either in hanging-drop or under a cover-slip when unstained, but under lateral illumination the stroma of the corpuscles is rendered plainly visible. Now it may be well that there exist important bodies whose refractive powers are too slight to enable them to be seen in hanging-drop, and which can not be stained by our present methods. In such cases this method of observation will be of positive value.

Since the method is applicable only to particles or small bodies in suspension, it apparently can be of no service in determining structure of tissues. The form of larger objects may be observed, but since the method does not magnify, the form of the smaller particles can not be determined.

In respect to the simplicity of the apparatus and to ease of examination of any fluid, this new method surpasses even the familiar hanging-drop.

Finally, I would call attention also to the fact that the few observations reported here were made with an imperfect apparatus.

A much more perfect illuminating system is desired, so as to obtain a smaller and more intense focus of light. This applies particularly to the study of ultramicroscopic particles, for it is generally true that the stronger the light the smaller are the particles which may be seen.

I wish here to express my thanks to Dr. Hektoen for suggestions.

THE DANGERS OF POTASSIC CHLORATE.

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Every obscure subject in medical literature should be reviewed from time to time on principles broader and more general than can usually be employed in text-books or special articles; and particularly when such obscurity is caused by a want of precision of language, by errors in the use of terms—faulty or loose terminology—and, what is more serious, by a failure to distinguish between two objects, which, though alike, are chemically and physiologically speaking, separate agencies.

For instance, a frequent and widespread source of error—and consequently of danger—arises from a confusion in the nomenclature. That is to say, potassic chlorate has been confounded, both in medical writings and in prescriptions, with potassic chlorid (KCL). Secondly, by a false analogy, the chlorate has been thought to have properties and effects identical with the chlorid, and not to be any stronger. For the belief that potassic chlorate and potassic chlorid are interchangeable, or at least as alike as twins, it is customary among some writers to blame the pharmacopeias. Our own, as it will be seen, is not liable to this criticism; but the German offends heavily. Thus a high authority[1] says: "In the pharmocopeia by the term potassic chlorate is understood potassic chlorid (KCL), while chemists apply the former name solely to the chlorate." A similar remark is made by Kobert.[2] On the inelegance of this ambiguous use of scientific terms, Virchow[3] comments with severity. In spite of these strictures from such good authority, it is possible to find in medical literature, numerous instances where the term "chlorid" is used where the "chlorate" is meant; and, sometimes in the course of the same paper both terms are employed so loosely that it is frequently difficult to tell from the context which is to be understood.[4] Finally, not only must the chlorid and chlorate be clearly separated, but both also must be carefully distinguished from the "hypochlorites" (KCLO, CaCLO2), often improperly called "chlorids," and in this false character responsible for some cases of poisoning.[5]

Into the error of confusing terms a writer in the Therapeutische Monatshefte[6] falls, while pointing out another blunder. Speaking of the danger of mixing potassic chlorate with organic or combustible substances, he cites as an instance of the non-observance of this rule the formula of a French surgeon where potassic chlorate is prescribed *in conjunction* with saccharin. The result was a violent detonation.[7] This mistake, absurd as it may seem, is natural enough. So, too, an examination of the literature will show that forgetfulness of the explosive power of potassic chlorate has been surpassed by a belief in the harmlessness of the salt. As long ago as 1830, there was a well-established opinion of this kind, an opinion based on experiments as ably conceived and carried out as most of the later ones. Thus, in that year, we find the matter lucidly and with great practical definiteness set forth by Professor Tully. He repeatedly gave, by way of trial, not only to his students but to himself, an ounce of potassic chlorate at a dose. No ill effects beyond slowing of the pulse and moderate intoxication were seen. [illegible] evidence of the accuracy of Tully's [illegible] he first satisfied himself by preliminary tests that he was using true potassic chlorate and not some colorable substitute. In this respect, as well as in other ways, his investigations compare favorably with those carried on in the laboratories of Europe.

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[1] Das Chlorsaure Kali, J. von Mering, Berlin, 1885, p 1.
[2] Pharmakotherapie, vol. i, p. 55.
[3] Barbarismen in der med. Sprache.
[4] Podcopaew: Archiv f. path. Anat., vol. xxxiii, p. 510
[5] Dict. de Thér., vol. ii, p. 1.
[6] 1894.
[7] Rev. de Thér. med. Chir., 1894, p. 241.

Subsequently, Isambert[9] declared himself in support of the belief in the harmlessness of potassic chlorate. He took it in doses of 20 grams, and observes that it is "d'une innocuité singulière." Again, Chaussier affirms that it may be taken without solicitude (inopinément). Another reports the case of a man who inadvertently took 9 drams without bad results. Such cases were common at one time—a fact remarked by Jacobi, who was one of the first to point out the danger. It was customary to give potassic chlorate in large amounts. It was known not to be very soluble, and for this reason as well as for its postulated safety, it was often administered in saturated solutions.[10] Even at the present day there are to be found some who maintain that the danger is almost a negligible quantity.[11] The case of Dr. Fountain, so well known, is an instance not so much of individual rashness as of the singular variability of the action of potassic chlorate. It will be remembered that he died from the effects of taking an ounce, a quantity as we have seen, that was frequently taken without harm. This case, together with one reported in Germany in 1878, were thought the only two recorded.[11]

As an explanation of that variable quantity—the toxic power of a salt—it has hitherto been found useful to employ the term "idiosyncrasy." In a negative way, this hypothesis has been of use in enabling us to describe a latency of poisonous power in a chemical body—a latency exploding into virulence under given circumstances. Latterly this idea has expanded into the notion of the pharmacodynamics of a salt, namely, the power it possesses as an entity, that is, before its molecular structure has been changed. These pharmacodynamic effects, according to Gruetzner, are proportionate—not to the absolute weight of a salt, but to its molecular weight.[12] It is, therefore, instructive to note that potassic chlorate acts in a state of almost complete molecular integrity, as it passes practically unchanged through the body; and, judging from the way in which it develops a toxic strength, it seems likely that its molecule is endowed with an uncommon potentiality, for its pharmacodynamic effects are often irresistibly sudden and fatal. This sudden explosiveness of poisonous power is to be clearly seen in the cases where the salt has been merely used as a gargle and has caused death. On this postulate of its latent danger it is possible to rest a good case against potassic chlorate; and on this basis of fact it is possible to reason out the tangle of results protocoled in the "casuistik" of the experimental pathology.

In this field a wide divergence of opinion reigns. Laborde, for example, denies that intravenous injections of potassic chlorate, even in large amounts, have any effects worth mentioning. Stokvis holds that it is of no greater power than common salt, and that it in no way alters the blood elements. This proposition is true of the action of solutions, both isotonic and hyperisotonic.[13] This view is opposed alike to common sense and to a conclusive clinical experience.[14] Yet it seems to be a fairly well-established opinion among laboratory experts. Thus Riess and Bokai[15] were unable to find the absorption bands of methemoglobin in the spectroscopic analysis of the blood of animals poisoned by potassic chlorate; nor was there any ocular proof of blood changes, such as chocolate discoloration, etc. On the other hand, in cases of poisoning in the human subject, the "striæ" of both methemoglobin and hematin have been spectroscopically demonstrated, and what is more, during life.[16] In fact, no one of any practical experience can doubt that potassic chlorate may profoundly alter the composition of the blood. What an abundant clinical experience now shows is, that this alteration of the blood may take place suddenly, and after comparatively small doses. In several instances a small dose, when taken on an empty stomach, has caused death. It shows its utmost power under these conditions, viz., where there is no mechanical interposing agency (such as food, aqueous contents of the stomach) between the salt and the avenues into the blood. It is under these conditions, as any valid observation will show, that potassic chlorate may display a treacherous power.

Importance of the Tongue in Diagnosis.—The old notion that the condition of the stomach lining was reflected in the mucosa of the tongue has been long exploded and even the débris have been scattered to the winds by a communication in the *Gazette des Hôp.* of Sept. 17, 1903, in which Mathieu and Roux discourse on the diagnostic value of the state of the tongue in affections of the digestive tract. They establish that the mucous membrane of the tongue is a false mucosa. It is not formed from the inner layer, but from the outer layer of the blastoderm. In structure it resembles the skin. The "coated tongue" is not due to an actual coating, but is, in effect, a grass plot of long and thick filiform papillæ, and the white color is due to a superficial desquamative dermitis. This dermitis arises and subsides under the influence of external and internal intoxications, like any cutaneous affection, with the important difference that the tongue is much more intensely sensitive than the skin, owing to its wealth of nerves and vessels. This lingual dermitis is, therefore, an extremely early and important sign of internal derangement, and thus the tongue retains all its old diagnostic value. The only difference is that the knowledge that this dermitis may persist after the cause has subsided should suggest that we must not wait for the tongue to clear before instituting nourishing feeding.

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[8] Boston Med. and Surg. Jour., 1832.

[9] Thèse de Paris, p. 14.

[10] Küster: Deutsche Zeit. f. prak. Med., 1877, No. 33.

[11] Berlin. klin. Woch., 1897.

[12] Deutsche med. Woch., 1893, 52; Archiv f. exp. Path., 34, p. 314.

[13] Bull. gen. de Thér., 1874, p. 247; Stokvis: Archiv f. exp. Path. u. Pharmak., vol. xxi, p. 169.

[14] Marchand: Ibid., xxii, p. 201; Virchow's Archiv, lxxvii, 455.

[15] Centralbl. f. Physiol., 1887, pp. 215 and 243.

[16] Jacob: Berl. klin. Woch., 1898.

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CERTAIN PHASES OF THE MILK PROBLEM.

There are few problems in medicine to-day which, from the point of view of the practicing physician, approach in importance the milk problem. The tendency of modern medicine is toward prevention of disease rather than cure. This does not mean that the treatment of disease is considered less important to-day than formerly, but rather that, through the application of the revolutionizing discoveries made in relation to infectious diseases, it has become possible to directly attack the disease from the standpoint of etiology, an attack seldom possible before, for causative factors were so little known.

Milk, being an excellent food both for man and bacteria, furnishes a most striking source of danger, because of the possibility of its being contaminated with pathogenic germs; and since it is so universally used, and especially because it is so indispensable to the young susceptible infant, it becomes plain at once that we have here an excellent problem for the application of the principles of preventive medicine. The frightful infant mortality in our large cities during the summer months, due in a large measure to unwholesome and contaminated milk, is sufficient to stimulate our best efforts to remedy this evil. Education of the people and of the dairymen can do much. A rigid system of inspection properly conducted might accomplish a great deal. But with our ever-increasing centers of population requiring milk to be transported long distances, often passing through several hands, the problem of a pure milk supply becomes one of extreme difficulty, especially when operated on a purely commercial basis. Right here we may take this opportunity to congratulate the Chicago Milk Commission, which last summer carried on with such evident success the pure milk campaign in the heart of a large city, and we earnestly hope that the same work will be continued and extended during the coming season in this and other cities.

But there are other aspects of the milk problem which, perhaps, are not so familiar, and which should be more generally known, especially among physicians. It is a deplorable fact that the percentage of mothers who nurse their babies is decreasing as civilization advances—certainly not a very clear index of progress. C. von Bunge, in a recent article, states that this fact is supported by numerous reliable statistics. He asserts that this inability on the part of mothers to nurse their children is a mark of degeneration, and is hereditary. The physician at once is presented with the difficult task of finding a substitute for mother's milk. In so doing he should know first of all that a perfect substitute can not be obtained. The first difficulty which usually arises is that of obtaining fresh, clean cow's milk, free from contamination with harmful bacteria and their products. The pasteurization of milk has done much in obviating this difficulty, but the pasteurized product is not always easily obtained.

Next is the difficult problem of so altering the percentages of proteids, sugar, fats, salts, etc., in the cow's milk as to make it conform as nearly as possible to the composition of human milk during the different periods of lactation. Fortunately the solution of this difficulty has largely been overcome, and for this we are indebted principally to American medicine, chiefly through the work of Rotch, Holt, Gordon and others.

But there is still another difficulty which is not so easy to master. It has long been known that the proteids of cow's milk are not exactly the same, especially in their physical properties, as those of human milk. This is clearly shown by the appearance of the curd formed in cow's milk and human milk. Also the fact that the proteids can be thrown down by specific precipitins which have no effect on milk of animals of another species, indicates a difference in the properties of the nitrogenous constituents. It has recently been shown, too, that there are certain specific enzymes or ferments in milk which differ according to the animal from which the milk is obtained. These ferments undoubtedly have an important action on the subsequent digestive processes in the intestinal tract of the child. Jolles[1] found, for example, that human milk would split up five or six times as much hydrogen peroxid in a given time as cow's milk, this action being due to the presence of a ferment. He also found differences in the behavior of woman's and cow's milk toward tincture of guaiac.

Welch, in his Huxley lecture, called attention to the function of mother's milk in transferring proper antibodies to the child. These bodies are absorbed by the stomach of the child in an active state, and hence we have an explanation of the greater resisting power of the breast-fed infant to infections, while the bottle-fed infant is much more susceptible. Ehrlich also has found that suckling animals can be protected from a specific disease if fed on milk from an animal which has been rendered immune.

Such facts as these furnish a scientific basis for the problem of infant feeding. They fully explain the fact already known that bottle-fed infants are at a great disadvantage in resisting disease, and they also explain the difficulty of furnishing a perfect substitute for human milk, and they emphasize the dictum: Feed the babies, so far as is in any way possible, on mother's milk.

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[1] Jour. de Phys. et de Pathogen., No. 1, 1904.

THE LESIONS OF UREMIA.

Cellular activity underlies all function, so that derangement of the latter necessarily implies alteration in structure. This alteration may be molecular, and thus not permanent or demonstrable, but it may be of any degree to the point of organic disease obvious to the naked eye. In the group of disorders designated functional, it is certain that changes occur which escape detection only because of the inadequacy of our best means of investigation, but even this group has gradually been reduced in number by the discovery of lesions with the aid of more refined modern methods. Thus some cases of epilepsy are obtrusively dependent on organic or structural alterations, and the view is gaining ground that other cases are due to changes of only a less coarse nature. It has been shown further that many toxic processes are attended with cellular changes, which, it may be conceived, if long continued or profound, may result in structural degeneration. In fact, demonstration of this character has been made.

Of the disorders of the class under consideration, none is perhaps more interesting than uremia, and none affords a better field for histologic study. The symptoms to which this toxic process may give rise are in part general and in part local. The former include, especially, loss of consciousness and convulsions, the latter palsy, aphasia and headache. The diagnosis is extremely difficult. After death, the only macroscopic alteration in the nervous system consists in edema of the brain and its membranes. Lately, a condition of chromatolysis of cells in the central nervous system has been found.

An interesting and important contribution to this subject is made by Dr. T. H. Weisenburg,[1] who reports two cases of uremic hemiplegia attended with alterations in the nerve-cells of the brain and spinal cord, associated in one with recent primary degeneration of the central motor tract. The one case occurred in a woman, 71 years old, who was attacked with left hemiplegia, resulting in death after fourteen days. On postmortem examination a condition of chronic diffuse nephritis was found, without gross lesion of the brain or cord. On histologic study, however, advanced chromatolysis was demonstrable, especially in the Betz cells of the paracentral lobule, more distinct on the side opposite the paralysis. The cells of the anterior horns of the spinal cord, the medulla oblongata and the cerebellum also were altered, though in lesser degree. There was present further slight though unmistakable degeneration of the fibers of one motor tract, from the lumbar cord to the internal capsule, evidently of recent origin. The degeneration was most marked in the left crossed pyramidal tract in the cervical region, and it became less intense in the medulla oblongata and the cerebral peduncle, while only traces of it could be detected in the internal capsule.

The second case occurred in a woman, 77 years old, also with left hemiplegia, terminating fatally in the course of four days. After death chronic diffuse nephritis was found, without gross change in brain or cord, although histologically degenerative changes were demonstrable in the nerve-cells, without, however, any alteration in the motor tract.

The evidence furnished by this report, and by others of like character in the literature, both clinical and experimental, render it certain that the uremic poison is capable of causing destructive changes in the cells of the central nervous system, especially the motor cells, and that degeneration of the motor tracts may follow as a result. It is further reasonable to conclude that what is true of uremia is probably equally true of other toxic processes.

ANTITOXINS IN PURE FORM.

During the last few years our knowledge concerning the nature and working of antitoxic serums has advanced so rapidly that it is only with difficulty that one can keep up with the new facts that are coming to light on all sides. Ehrlich's side-chain theory has furnished us with a good working hypothesis on which to advance, and with its aid we can form a clear mental picture of the mechanism of the production of antibodies. We know also through Ehrlich's teaching that the neutralization of toxin by antitoxin is a chemical reaction, and efforts are being made to show that this reaction follows the same laws that are known to govern the simpler and better understood chemical phenomena. The nature of some bacterial toxins has also been studied in great detail, and attempts have been made to make an equally close study of the antitoxic bodies found in the various antitoxic serums. The great difficulty here has been to free the antibodies of the serum-albumin and serum-globulin with which they are so intimately mixed.

Pick, however, has made great advances toward getting the antibodies in pure form by making use of Hofmeister's method of fractional salting out of proteids. According to this method, the serum-globulin is divided into (1) fibrinoglobulin, which is precipitated by a small percentage of ammonium sulphate; (2) euglobulin, which is precipitated by adding one part of a saturated solution of ammonium sulphate to two parts of serum; and (3) pseudoglobulin, which is precipitated only by half saturating the serum with ammonium sulphate, the albumin still remaining in solution. Pick found now that the fibrinoglobulin and the albumin possess no antitoxic properties, while either the euglobulin or the pseudoglobulin contains all the antitoxin. Which one of these two globulins contains the antitoxin depends on the kind of animal from which the serum is taken, whether a horse or a goat, and on the kind of toxin used in the process of immunization, whether from diphtheria, tetanus or cholera cultures. He found, for instance, that the diphtheria and tetanus antitoxins in horse's immune serum are precipitated with the pseudoglobulin, while these same antitoxins in goat's immune serum are precipitated with the euglobulin. This is very interesting, because it points to the probability of there being a fundamental difference between the several antitoxins, although they seem to act alike when injected into an infected animal. The specific agglutinins in typhoid and cholera immune horse's serums may also be precipitated with ammonium sulphate, and the interesting fact has come to light that the cholera agglutinin goes down with the euglobulin, while the typhoid agglutinin comes down only with the pseudoglobulin. In the goat's and rabbit's immune serums both of the agglutinins are contained in the euglobulin. The precipitin in typhoid immune horse's serum is contained in the euglobulin, thus differing from the agglutinin for the same organism. Rodhain made a study of antistreptococcus serum from a horse, and found that both the antitoxin and the agglutinin are precipitated with the euglobulin, thus differing from the diphtheria and tetanus antitoxins, which, in horse's serum, are found in the pseudoglobulin.

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[1] Proceedings of the Pathological Society of Philadelphia, February, 1904, p. 62.

Although the antibodies have been freed from a large portion of the proteids, it can not be said that they are identical with the globulins with which they are precipitated. In fact, there is evidence to show that they are not globulins, but as yet no satisfactory scheme has been published for getting them in pure form, although Pröscher states that he has succeeded in freeing them from all proteids. By means of this fractional salting-out method, the antitoxin can be prepared in a much more concentrated form, and the inert substances which have no therapeutic value need not be thrown into the patient's system, which is already overloaded with work.

THE PANAMA CANAL COMMISSION AND MEDICAL SERVICE AT THE ISTHMUS.

A recent news item announces that the Panama Canal Commission has sailed for the isthmus on a tour of inspection. Accompanying the commission were Drs. William C. Gorgas and Louis LaGarde of the United States Army and Dr. Ross of the Navy, who, it is unofficially announced, are to have supervision of the sanitary arrangements on the isthmus.

The circumstance, in all its aspects, is one of decided interest to the medical profession of America. In the first place, the commission, made up of a soldier, a sailor, four engineers (designated by law) and a railroad man—all of them, however, eminent in their respective callings—had evidently no sooner accepted their instructions from the President than they found themselves confronted by the sanitary problem, the fundamental difficulty underlying the whole enterprise. As a matter of fact, the President himself, who had previously received over fourteen hundred telegrams and a large number of letters on the subject from physicians all over the United States, went quite as far as he could in telling the commissioners that they must have first regard for the health problems, going so far even as to intimate that that department would better be placed in the hands of one man specially fitted to meet its responsibilities. That the commissioners have or have not acted on this very wise advice can not be determined from any intimation that has so far been vouchsafed to the public. It is evident, however, that, confronted with responsibilities that they knew they were technically unqualified to meet, they had no sooner taken their last sip of coffee at the White House luncheon, by which they were inducted into office, than they sent up a Macedonian cry for Colonel Gorgas—the very man whom the medical profession had been urging for appointment on the commission. This was a hopeful beginning. The addition of Drs. LaGarde and Ross to the medical advisory bureau—for, in the nature of things, it will not be permitted to be more than advisory—will even strengthen the extemporized medical corps, unless in violation of correct principles of organization it is thereby made a hydra-headed monster.

The more plausible inference—for as yet we are permitted only to infer—is, however, that Colonel Gorgas is to consider the land sanitation, Dr. Ross that relating to sea transportation, while Dr. LaGarde is to study the question from the more strictly military view point. This seems very natural, and doubtless will do very well if several questions that can hardly be called subsidiary are properly solved. Thus if, in the organization of the sanitary forces, these three apparently coordinate branches are made really to co-ordinate, the circumstance must be considered fortunate; if, on the other hand, each is made independently autonomous, no prophetic vision is required to foresee disaster. But the question naturally arises, where is to be the co-ordinating center? This, under the law, can exist nowhere else than in the commission itself. Thus we find this very respectable body of laymen, in spite of any regulations that they may frame, called on to sit in final judgment on questions foreign alike to their schooling and their experience. If they attempt to shift the responsibility by regulations they are still responsible for the regulations, to the general provisions of which all practical details must be made to conform.

It follows, as a consequence, that the medical profession, while placed in a position of primary accountability for results in the most conspicuous enterprise of the century, if not, indeed, of the centuries, is, nevertheless, without representation in the council that orders, directs and absolutely controls every action. This attitude of distinct subordination—an attitude that can not be otherwise than offensive to every self-respecting physician in the United States—is one for which Congress, by failing to specify that at least one medical man, as well as engineers, should be on the commission, is to be held responsible.

A DELICATE TEST FOR ARSENIC.

We again call attention to the interesting researches of Abbo, the director of the Hygienic Institute of Turin, on the detection of minute quantities of arsenic by means of the growth of a certain variety of fungus. This fungus, known to botanists as *Penicillium brevicaule,* was long since observed as a frequent and troublesome growth on the walls of damp rooms covered with paper containing arsenic. But it is only recently that it has been established that the fungus, when brought into contact with substances containing arsenic, develops with great rapidity an intense odor of garlic.

Abbo, as a result of a long series of experiments, now recommends the use of the fungus as the simplest, surest and most delicate qualitative test which exists for the presence or absence of arsenic. He has found it possible to establish definitely within a few hours the presence of minute quantities of arsenic in a contaminated flour, in the urine of patients treated with arsenical preparations, and even in a case of arsenic poisoning through illuminating gas. Abbo's assertions receive strong support in the confirmatory work of Abel and Battenburg in the Hygienic Institute at Hamburg.

The reaction for arsenic by means of *Penicillium brevicaule* is said to be so sharp that even as small an amount of the substance as one-millionth part of a gram can be detected. Obviously, here we have to deal with a delicacy of reaction which is almost unprecedented. It is of great interest that the degree of refinement in the test attained is dependent on the sense of smell, for it is by aid of the olfactory sense that even smaller amounts of certain organic substances can be made out. Thus Emil Fischer and Pentzold have shown that one five-millionth of a gram of chlorphenol can be perceived by the nose, and even a smaller quantity of mercaptan can be recognized by it. Of course, such quantities are far removed from the weight of a chemical molecule; they represent, according to present estimates, at least from two hundred millions to several billions of molecules. Nevertheless, such olfactory reactions are far more delicate than ordinary optical tests.

The "arsenic-fungus" grows well on potato, and can be kept in pure culture, without transplantation, over a long period; there seems to be no reason, therefore, why the test should not be frequently applied, even by the physician in private practice. That the reaction will play an important part in legal medicine there can be no doubt. No less an authority than Professor Kobert holds the discovery of the arsenic-fungus to be one of the greatest of modern victories for forensic medicine.

COMMISSION TO MEDICAL SOCIETIES.

A new form of commission evil comes to light. An enterprising firm imbued with the spirit of the age (at least that portion of it denoted as "grafting"), has made a novel proposal to the secretaries of state medical associations. We quote:

> We are sending you by mail a display card with booklet on the ——— ——— ———, which we would kindly ask you to have displayed in any prominent place at the meeting, either in the Assembly or Exhibit Hall where physicians who are interested in the treatment of ——— may see the same; for which courtesy we will send the association or you a draft for five dollars ($5.00) on the first order received from any ——— surgeon or hospital following the meeting.

A smirking pretense of regard for the proprieties is shown in the half-hearted proposal to donate the remuneration to the association in case the secretary has a conscience.

INHERITED DEFORMITY.

In the Vienna correspondence of the *Medical Press and Circular,* March 12, it is reported that Dr. Heim presented before the medical society at Vienna (*Gesellschaft der Aerzte*), a woman aged forty, who twenty-one years before had suffered from injury and blood poisoning of the right middle finger, which necessitated two years later amputation of the finger with the third metacarpal bone. Since then she has had six children, four of whom have had cloven hands shaped in the same manner as their mother's, with, in some cases, a rudimentary third metacarpal bone. Heim also gave a history of a similar condition existing in three generations in another case. Considering the fact that the inheritance of acquired characters is a matter of dispute and is positively denied by a large school of medical writers, such reports as these are deserving of a thorough investigation. They are in accordance with the popular belief, but the satisfactory evidence of their occurrence is not often complete or forthcoming. We trust that this case will be thoroughly authenticated or disproved, and the relation of the original injury to the inherited defect be, if possible, adequately traced out.

TITLES OF PAPERS.

One of the interesting features of the editor's work in looking over other medical journals is to note the varieties in titles and the peculiarities of authors. The titles of some articles are so long that they almost make it unnecessary to read the paper. Harris Hawthorne Wilder, in a letter to *Science,* March 18, comments interestingly on long titles, which he classifies as "explanatory" or as "modest." In the first, an author endeavors to show exactly what he is covering in his paper; in the second, he seeks to bring out that he appreciates the vastness of the subject and how little he really has accomplished. One of the latter often begins, "A contribution to the study of." Wilder says that although composed in the most laudable spirit, such titles are hardly necessary, since there is little danger of misunderstanding on the point guarded against by the writer. Wilder suggests the use of a title and a subtitle. This is a plan we often use in The Journal, making the title brief and general, and including in the subtitle certain definitions and limitations of the subject. We are amused by the title at the head of Wilder's communication, but we do not know whether he or the editor of *Science* is responsible for it. It is "On Titles for Papers." What possible use the word "on" may have is unknown to us. There is often much room for improvement in titles, and the elimination of unnecessary words is one means of improvement.

THE OCCURRENCE OF TYPHOID BACILLI IN THE EXCRETA OF TYPHOID CONVALESCENTS.

The importance, from a prophylactic point of view, of knowing how long the typhoid bacillus may remain in the excreta can not be overestimated. As far as the urine is concerned there have been numerous observations in the past few years, which have led to an appreciation of the fact that the typhoid bacillus is present in the urine in a fair percentage of typhoid cases, and that it may remain even years after convalescence has been established. Herbert[1] has recently been able to study both the urine and the feces in a large number of convalescent typhoid patients during an epidemic in a hospital for the insane. The urine of ninety-eight convalescents was examined, and the typhoid bacillus was found in eighteen or a little over eighteen per cent. of the cases. In the same number of cases typhoid bacilli were only found in the stools three times, a little over three per cent. An interesting fact in connection with the urine examinations was that the bacilli appeared intermittently in one case. They would disappear for a few days and then reappear again, often in large numbers. The important practical fact shown by these investigations is that the urine of convalescent typhoid cases is much more dangerous than the feces, and should be most carefully disinfected in all cases until the bacilli disappear.

NEW IMMUNITY TERMS.

"Antitrope," or "antitropin," is a new term which Wright[2] has invented as a generic term for the antibodies. Aside from the fact that it is undesirable to introduce a multiplicity of terms to designate the same thing, we are inclined to consider the word itself a poor one. The use of *anti-* is appropriate in two senses; it expresses, in the first place, the antagonism which an antibody has for its counter-substance, and suggests also the general law that by immunizing with proper proteid bodies there are developed new bodies the specific opposites of those injected. The term antibody seems, then, to express the important qualities in a generic sense. The addition of *-trope* or *-tropin* (from the Greek τρεπειν, to turn) introduces the idea of affinity into a word which already bears the meaning of antagonism. Either root may be considered as appropriate, but the two combined add nothing essential to the already established *antibody*. Through its use Wright has provided us with the following combinations: agglutinating, bactericidal, bacteriolytic, antitoxic, and opsonic antitropins. "Opsonin" is used to designate that quality of a serum which makes a microbe more susceptible to phagocytosis, the term having its origin from a Greek word which means "to provide food for." It is questionable if such a quality of serum, as a distinct one. has been sufficiently determined as to justify our looking at it in this specific manner. It may well be that the bactericidal substances, or in some cases the agglutinating, so impress the bacteria that they become more readily the prey of the phagocytes. Hence, until opsonin can be demonstrated as a substance distinct from these, the word does not commend itself for general use.

THE PASSING OF THE CORONER.

After four years of strenuous effort the Elsberg bill abolishing the office of coroner in Greater New York has been passed, its passage having been materially aided by an emergency message from the governor. The bill does not affect the coroners now in office, but no successors will be elected. The only powers that remain to the coroners are those of investigation. They may collect evidence and take testimony to aid the magistrate and district attorney. In addition to the valid reasons which have been previously given in The Journal for the passage of such an act, there will be a saving in New York City of not less than $60,000 per year, beside putting an end to the ignorant and corrupt practices which have grown up under the late evil system. Some of the political coroners, it is said, have been unable to speak intelligible English, and miscarriages of justice have occurred on this account. How deeply this lon-continued abuse had established itself is evidenced by the fact that the bill was introduced and beaten in four legislatures before its final passage. Under the present law there is provided a chief medical examiner and six medical examiners for Manhattan Borough, four for Brooklyn, three for Queens and two each for the boroughs of Bronx and Richmond. They are to be physicians appointed by the mayor, as far as practicable, from the coroners' physicians now in office. The medical examiners are to form a part of the health department, their duties being to make reports in all suspicious deaths to the magistrate, and if the examiner is not satisfied with the result of the examination as to the cause of death he is to invite the district attorney, and then make an autopsy in the presence of that officer and of a policeman. The people of the city of New York are to be congratulated on the departure of this antiquated relic of monarchical government.

A PLEA FOR PATHOLOGIC PHYSIOLOGY.

The remarks of Professor Orth, chairman of the *Deutschen pathologischen Gesellschaft*, at its last meeting in Cassel, in which the desirability of cultivating pathologic physiology in contrast with pathologic anatomy was strongly emphasized, have just been published in full.[2] It was a favorite idea of Virchow's, though Virchow himself was a pathologic anatomist, that the science of pathologic physiology should be developed; such a science includes the essence of practical medicine. for the latter is only applied theoretical medicine, that is, pathologic physiology. Pathologic physiology is founded on pathologic anatomy, clinical observations and experimental investigations; it has as its task the establishment and explanation of the vital processes under abnormal conditions. It is a biologic science, standing in the same relation to pathologic anatomy as that in which normal physiology stands to normal anatomy. It is necessary to admit, as Professor Orth does, that the development of pathology thus far has been predominantly along morphologic lines. Clinicians have, it is true, made notable contributions to the pathologic physiology of man; much more perhaps can be hoped from them when universities establish clinical chairs with honoraria large enough to absolve the holders from the necessity of making a living from private practice, permitting them to devote more of their time and energies to the scientific side of their work. But experimental pathologic biology is the branch which, perhaps, more than any other needs attention just now. It is matter for regret that by far the majority of chairs of pathology in this country and in Germany are devoted to work in pathologic anatomy, to the exclusion of pathologic physiology, except, perhaps, as a side issue in some of the laboratories. An ideal department of pathology should provide for teaching and investigation in experimental pathologic physiology, as well as in pathologic anatomy. We do not wish to see the autopsy table and the microtome banished from our laboratories of pathology; quite the contrary. Let them be forced to yield us what information they will. But, in addition to our morphologic pathologists, we need a generation of young pathologists, trained in mathematics, physics and chemistry, who will approach the study of disease and its phenomena from the functional rather than from the morphologic side. Possibly progress might more rapidly be made in this direction if some of our stronger and wealthier universities were to establish special chairs for experimental pathologic physiology.

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[1] Münchener med. Woch., vol. li, No. 11. The Journal, page 1056.

[2] The Practitioner, February, 1904.

[1] See editorial, Jan. 10, 1903.

[2] Verhandlungen der Deutschen pathologischen Gesellschaft. Sechste Tagung gehalten in Kassel, Sept. 21-25, 1903. Jena: G. Fischer, 1904.

THE RADICAL CURE OF HERNIA.

There seems no reason now why patients, and especially young patients, should any longer be discouraged from having radical operations for hernia done, and encouraged to wear trusses with all the danger and inconvenience and discomfort that this form of treatment entails. There are still many physicians, however, who seem to feel that operation should not be suggested, and who perhaps have not fully realized what is the present position of surgery in this matter. In the last number of the *International Medical Annual*,[1] Dr. Mayo Robson, the distinguished English surgeon, reviews the statistics of a number of operators for the radical cure of hernia, and shows very clearly how favorable have been the results immediate and eventual of operation. In Johns Hopkins Hospital there was only one death in 459 operations. In Carle's clinic in Rome, two deaths in over 1,400 operations. In the Vienna clinic, three deaths out of 804 operations. In Dr. W. B. Coley's 1,075 cases only two deaths. All of these reports combined give a mortality of scarcely one-fifth of 1 per cent. In spite of ominous prognostications from older surgeons, the ultimate results in the majority of cases are even better than have been anticipated by the advocates of early operation. Out of 917 Bassini's operations not quite one out of every 100 cases suffered from a relapse of the hernia, though many of the cases were old and complicated. When relapse does occur, it comes within six months almost without exception. Patients who remain cured for a year after the operation, may be expected to continue in this condition, and after two years may be considered permanently cured. This is an excellent result to obtain at so slight a risk. An analysis of the cases in which death occurs would still further enhance the encouragement afforded by the statistics, since many of the fatalities were due not to septic infection nor to any mishap during the operation, but to conditions like the effect of anesthetics or of kidney irritation, which could not well be foreseen and guarded against. When the very high mortality of strangulated hernia is considered, the picture thus presented becomes even still more striking. At the present time in hospital practice more than one out of every five patients are lost, even in the hands of excellent operators. In private practice the mortality is less than 10 per cent., but this is surely not low enough to encourage the taking of the risk. There seems no doubt, then, that physicians should recommend much more generally than they do at the present time the radical cure of hernia by operative procedure rather than, as is commonly done, prescribe a truss. The smaller the hernia the more easily the operation is performed and the less danger there is of recurrence. It is after tissues have become weakened and deformed by the frequent protrusion of the hernial sac that the operation becomes more dangerous and relapse becomes more possible. Here that much-abused term, conservatism, seems to indicate operative intervention rather than the supposedly palliative, but in many cases really provocative, treatment by apparatus.

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[1] Page 434, E. B. Treat & Co., New York, 1904.

Medical News.

CONNECTICUT.

For the Endowment Fund.—Under the will of the late Mrs. Anna Sophia Farnum, the endowment fund of the Yale Medical school receives the income of $50,000.

Shoemaker Lectures at Hartford.—The third lecture in the course at Walnut Lodge Hospital, Hartford, was delivered by Dr. John V. Shoemaker, Philadelphia, who spoke on "The Abuse of Drugs."

Talks on Tuberculosis.—Popular lectures have been given in New Haven under the auspices of the local medical association, on the "Prevention and Cure of Consumption," by Dr. Louis M. Gompertz in English; by Dr. Nicola Mariani in Italian, and by Dr. Polinski for the benefit of those who understand neither English nor Italian.

GEORGIA.

Smallpox.—Smallpox is reported to be raging at Babcock, about eight miles from Colquitt.

Commencement.—Atlanta College of Physicians and Surgeons, at its commencement exercises, March 29, conferred diplomas on a class of 43.——On April 1 the Medical College of Georgia, Augusta, graduated a class of 22.

Personal.—Dr. John A. Corry, Barnesville, has been made local surgeon of the Central Railroad of Georgia, vice Dr. K. Lowder Reid, removed to Atlanta.——The Valdosk Board of Health has organized with Dr. Benjamin S. Burton, president, and Dr. James M. Smith, vice-president.

ILLINOIS.

Pure Food Bill.—Peoria County Medical Society, at its last meeting, adopted resolutions favoring the adoption of the Heyburn pure food bill.

Promotion.—Major Henry Richings, Rockford, surgeon Third Infantry, Ill. N. G., has been appointed assistant surgeon general, and chief surgeon of the Third Brigade with rank of lieutenant colonel.

Physician a Fugitive.—Dr. Benjamin F. Slusher, Decatur, who was indicted by the Macon County grand jury, charged with the death of a woman by a criminal operation has disappeared, and the governor has offered a reward of $200 for his apprehension.

Chicago.

New Internes.—Of the new internes at Cook County Hospital, 8 are graduates of Rush Medical College, 4 of Northwestern University Medical School, and one of the College of Physicians and Surgeons.

Evans for President of State University.—The name of Dr. William A. Evans is the one most prominently brought before the profession and public thus far, as successor to President Draper of the University of Illinois. The medical profession, which knows Dr. Evans well, is most active in urging his candidacy.

Pneumonia on the Decrease.—The 111 pneumonia deaths of the week represent but 18 per cent., instead of the previous average of 21 per cent. of the total deaths. There is a similar decline in New York. The following are the figures for the two cities during the current pneumonia season, from Nov. 1, 1903, to April 16:

	New York.	Chicago.
Total deaths, all causes	36,831	13,586
Deaths from consumption	4,128	1,423
Deaths from pneumonia	7,769	2,968
Proportion per cent. of all deaths—		
From consumption	11.2	10.4
From pneumonia	21.1	21.8

The Deaths of the Week.—With the exception of the acute intestinal diseases, Bright's disease and pneumonia, all the important causes of death show an increase in the returns for the week. The total of 616 is 54 more than the total for the previous week, but is 24 less than for the corresponding week a year ago. In proportion to population this is 8 per cent. per 1,000 more and 7 per cent. per 1,000 less for the respective weeks. As compared with the average April death rate of the previous decade—17.31 per 1,000—it is 4.8 per cent. less. Pneumonia leads with 111 deaths; then follow consumption with 78; heart disease with 50; violence with 43, and Bright's disease with 39 deaths.

INDIANA.

Smallpox.—At Aetna Green, Kosciusko County, there are about 60 cases of smallpox. Vaccination is in progress and close quarantine is enforced.

Hurty Re-elected.—The Indiana State Board of Health has unanimously re-elected Dr. John N. Hurty, Indianapolis, as secretary of the Board for a term of four years.

March Deaths.—During March 3,487 deaths occurred, an annual rate of 17.4 per 1,000. In the corresponding month of 1903, 2,677 deaths were reported, an annual rate of 13.8 per 1,000. Pneumonia caused 711 deaths, as compared with 399 in March, 1903.

Fire in Indianapolis Hospital.—Fire in St. Vincent's Hospital, Indianapolis, early on the morning of April 17, caused one death, that of an aged nurse, who jumped from a fifth-story window; necessitated the removal of about 200 patients, and caused a loss of $2,000. Further casualties were avoided by the presence of mind and heroism of Miss Hannah Heaken, a nurse, and of James Dawson, a patient.

Personal.—Dr. Ira E. Dunlavy, Indianapolis, has been appointed first deputy coroner of Marion County, vice Dr. John F. Geis, deceased.——Dr. and Mrs. Leo J. Weinstein, Terre Haute, have taken a trip to Bermuda.——Dr. Stanley W. Edwins, Elwood, has retired from active practice.——Dr. and Mrs. Edmund D. Clark, Indianapolis, sailed for Italy, April 12.——Dr. Sarah Stockton, Indianapolis, has been appointed a member of the State Board of Charities and Corrections.——Dr. William E. Green, Hanover, had his arm broken and sustained internal injuries in à runaway accident.

MARYLAND.

Will Build Hospital Wing.—Mrs. Margaret E. S. Hood, a member of the board of directors of the Frederick City Hospital, will erect a wing to the hospital as a gift, to cost about $8,000.

Governor Signs Bills.—The governor has signed the following additional bills: Tuberculosis commission; abolishing Allegany Insane Asylum; restricting sale of narcotic drugs: omnibus appropriation bill, appointing five police surgeons for Baltimore; appropriation for state Board of Pharmacy; regulating practice of medicine and registration of nurses.

Baltimore.

Cecil Rhodes Scholarship.—Twelve candidates appeared last week at the Johns Hopkins University to compete for the one Cecil Rhodes scholarship at Oxford University allowed this state. The successful candidate will receive three years' tuition at Oxford and $1,500 per annum. He can pursue in his discretion a collegiate, post-graduate or professional course.

Personal.—Dr. William Hewson Baltzell leaves for Europe, April 29.——Dr. H. M. Cohen sailed for Europe April 20.——Dr. Harry C. Jones of the chemical department of Johns Hopkins University, has received $1,000 from the Carnegie Institute for research work in physical chemistry. He has appointed Dr. H. P. Basset research scholar.——Dr. Thomas H. Buckler will spend the summer at Northeast Harbor, Maine.

Ehrlich on Immunity.—Dr. Paul Ehrlich lectured on immunity, April 12, 13 and 14. On Tuesday evening a smoker was given in his honor at the Maryland Club, and on Wednesday evening a dinner by the Medical Faculty of Johns Hopkins University. There were about 60 present from Baltimore, New York, Philadelphia and Washington. At the close of Dr. Ehrlich's last lecture, Dr. William H. Welch addressed him in a complimentary speech in his own language.

Health Report.—Ten new cases of smallpox were reported in Baltimore last week, making 19 now at quarantine. There are 19 suspects at the detention barracks. The cases recently discovered have been scattered through the city, showing that they were of local development, and that the contagion has obtained a foothold here. The total deaths were 191, or 17.69 per 1000 per annum; consumption causing 31, pneumonia, 19; heart disease, 16; Bright's disease, 14, and typhoid fever, influenza, and scarlet fever, each 5.

MICHIGAN.

Lower Michigan Should Boil Water.—The State Board of Health has issued a bulletin urging that all drinking water in lower Michigan be boiled on account of recent floods, by reason of which there has been much surface drainage into wells.

Buys College Property.—The Medical College Equipment company of Grand Rapids has been incorporated with a capital stock of $1,500, to acquire the property of the Grand Rapids Medical College and has leased the property to the trustees of the college.

Wooden Anniversary of Biologic Department.—The Stearns laboratories, Detroit, celebrated the fifth anniversary of their establishment, April 7. Unique wooden invitations were issued and several hundred physicians took occasion to visit the laboratories and observe the work in progress there. A buffet luncheon was served and wooden souvenirs were distributed.

Comparative Morbidity.—For March, 1904, compared with the preceding month, cancer, smallpox, cholera morbus, meningitis, membranous croup and puerperal fever were more prevalent; and syphilis, typhoid fever, intermittent fever, and dysentery were less prevalent. For the same month, compared with the average for March in the previous ten years, 1894-1903, scarlet fever, typhoid fever, smallpox, and diphtheria were more than usually prevalent; and pneumonia, erysipelas, inflammation of bowels, intermittent fever, remittent fever, whooping cough, dysentery, cholera morbus and puerperal fever were less than usually prevalent.

The Most Dangerous Communicable Diseases.—Meningitis was reported present during March, 1904, at 10 places; whooping cough at 22 places; diphtheria at 81 places; typhoid fever at 82 places; smallpox at 138 places; measles at 152 places; scarlet fever at 162 places; pneumonia at 166 places, and consumption at 233 places. Meningitis reported present at the same number of places: whooping cough at 2 places more; diphtheria at 16 places less; typhoid fever at 5 places less; smallpox at 7 places more; measles at 23 places more; scarlet fever at the same number of places; pneumonia at 57 places more; and consumption at 26 places more, in the month of March, 1904, when compared with the preceding month.

March Mortality of Michigan.—The total number of deaths for the month of March was 3,406, which was only 19 more than the number returned for the preceding month. The death rate was 16 per 1,000 population, as compared with 17.1 for the preceding month. Important causes of death were as follows: Tuberculosis of lungs, 270; typhoid fever, 57; diphtheria, 38; scarlet fever, 31; measles, 27; whooping cough, 21; pneumonia, 384; influenza, 156; cancer, 149; accidents and violence, 199. Deaths from pulmonary tuberculosis and typhoid fever showed some increase, while diphtheria, pneumonia and influenza caused considerably fewer deaths in March than in February.

MINNESOTA.

Smallpox.—During the last week of March, 62 cases of smallpox were reported to the State Board of Health. Of these, 17 were in Minneapolis, with one death.

St. Paul Physicians Win Suit.—Drs. Charles A. Wheaton, John T. Rogers and Warren A. Dennis, St. Paul, who were sued by William Henslin, for $22,500 on account of injuries alleged to have been suffered by him while under *x*-ray treatment, have been held blameless by the jury.

Half a Century of Medical Work.—On April 1, colleagues and friends of Dr. Charles F. Warner, Mankato, gave a banquet "in honor of fifty years' continuous service in war and peace in the honorable practice of his profession." Dr. E. J. Davis presided as toastmaster, and after many eulogistic toasts had been given, Dr. Warner closed with reminiscences.

St. Paul Has Little Typhoid.—The death-rate of St. Paul from typhoid fever in 1901, 1902 and 1903 is announced to have been about 16 per 100,000, less than one-third the death-rate of Minneapolis for the same period, about one-half the death rate of cities and villages between 2,000 and 20,000 inhabitants, and less than a third greater than the death-rate in rural communities in the state.

Personal.—Dr. Donald B. Pritchard, Winona, was thrown from his buggy in a runaway accident, April 6, and suffered a fracture of the leg and severe contusions.——Dr. Albert A. Ames, recently discharged on a technicality, after having been convicted of receiving bribes while mayor of Minneapolis, was again arrested April 14 on a similar charge.——Dr. Henry Hutchinson, St. Paul, has been elected president of the State Board of Health, vice Dr. Franklin Staples, Winona, deceased, and Dr. William H. Rowe, St. James, was elected vice-president.

MISSOURI.

Graduating Exercises.—St. Louis College of Physicians and Surgeons graduated a class of 46, April 12.——University Medical College, Kansas City, held its commencement exercises, April 12, and conferred diplomas on a class of 67.

How Long!—Many people near Carson have been ill with an undiagnosticated disease, pronounced by certain of the local talent to be itch. The State Board of Health has made the usual investigation with the usual result—smallpox.

Damages Against Healers.—The Supreme Court of the state has affirmed the decision of the circuit court of Bates County, which allowed $7,500 damages to Sue L. Longan, in her suit against S. A. Weltmer and J. H. Kelly, "magnetic healers," of Nevada, for criminal negligence.

St. Louis Personals.—Health Commissioner Dr. John H. Simon, who has been seriously ill with pneumonia, is now believed to be securely convalescent.——Dr. J. Mather Pfeiffenberger, has been appointed assistant superintendent of the City Hospital, vice Dr. J. S. Herrington.——Dr. Bruce Cochran, senior on the attending staff of the City Hospital, is seriously ill from septicemia due to an autopsy wound.

NEW YORK.

Epidemics.—An epidemic of diphtheria is now raging in Montgomery.——An epidemic of scarlet fever prevails in Rome, where 60 cases have been reported. Five of the public schools have been closed.

Cancer Laboratory Gets Appropriation.—The state cancer laboratory at Buffalo will receive its annual appropriation of $15,000 from the legislature. The chairman of the senate finance committee, who cut the item out, finally agreed that it be retained in the supply bill.

Personal.—Dr. Elmer E. Larkin, Plattsburg, was appointed a manager of the State Consumptive Hospital in the Adirondacks.——Dr. William Mabon, general superintendent of Bellevue Hospital, has been named president and medical member of the State Lunacy Commission. He will have a life tenure with a salary of $7,500 a year, and an allowance of $1,200 a year for traveling expenses.

Further Ratifications.—The medical associations of Wayne, Wyoming, Sullivan, Rensselaer, Westchester, Jefferson, New York, Ulster, Saratoga, Orange, Lewis, Broome and Oneida counties have ratified; a remarkable showing, as the state ratification took place only on March 25. The majority of both county societies and associations will have ratified before May. The counties that have already acted represent more than three-fourths of the entire membership.

Protection Against Blackmail.—The large number of blackmailing malpractice suits against reputable physicians led the New York State Medical Association two years ago to undertake to furnish its members with a purely fighting defense proposition, requiring the applicant for defense to agree to fight each case through to the court of last resort. The counsel for the association says that statistics show that, during the last few years, throughout the United States, one physician in every one hundred and fifty has been sued each year for alleged malpractice. The medical association, by its work, has decreased the number of these suits. In most of these cases no complaint has ever been served, and in only three has the action been put on the calendar for trial, showing that after one year of this defense an effect on the public was evident. This defense has become so well known that the whole state is covered and physicians in other cities receive the same defense as those in New York County who are members of the association. Within the last year three of the representative organizations of other states have taken up this same plan of defense.

Report of State Health Commissioner.—Dr. Daniel Lewis, in his annual report to the legislature complained of the paucity of appropriations for the work of his department. He thought $1,000,000 a year could be used with advantage to the state. He urged the enactment of a bill now before the legislature providing $20,000 for the establishment and maintenance for one year of a new bureau of water supply and drainage in the health department for the purpose of minimizing typhoid fever epidemics. The report of Dr. Willis C. Tucker, in charge of the bureau of chemistry, included in that of Dr. Lewis, showed that out of 69 samples of food analyzed 32 were found to be adulterated. As only suspected foods were analyzed the percentage of adulterated foods would probably not be so great as this. Deaths from cancer were 10 per cent. more than for the previous year. The superintendent of public instruction reported that 14.1 per cent. of the pupils examined had defective vision. Smallpox caused only 41 deaths. There were reported 89,067 births, 48,976 deaths, and 21,376 marriages. Among other important questions set forth in the report may be noted the deplorable delinquency on the part of some local health departments in reporting vital statistics; a large number of sewage systems inspected; rules for water supply protection laid down; abatement of nuisances and investigations carried on. The report of the investigators and engineers in the alleged pollution of the waters of Lake Champlain by acid sludge from the wood pulp mills will be complete in a short time.

Buffalo.

Personal.—Dr. and Mrs. T. Wright have sailed for Europe.——Drs. Edward J. Myers, Henry C. Buswell, Hal B. Brownell and Charles W. Banta sail for Europe April 23.

Serum Will Not Keep.—An effort was made by Health Commissioner Greene to have serum for the treatment of hydrophobia sent to Buffalo from New York instead of sending victims of rabid dog bites to New York for treatment. It was ascertained, however, that this could not be done, as the serum must be used within 24 hours after it is made, and that it would deteriorate under shipment.

March Deaths.—The monthly report of the department of health for March, 1904, shows an annual death rate of 15.78 per 1,000. The principal causes of death were as follows: Consumption, 45, diphtheria, 4; scarlet fever, 2; syphilis, 7; debility, 56; cancer, 33; apoplexy, 26; dementia, 14; meningitis, 16; valvular heart disease, 27; pneumonia, 60; appendicitis, 6; nephritis, 26, and violence, 30. The total deaths for March were 500, as compared with 503 for March 1903.

New York City.

Now Dr. MacDonald.—J. MacDonald, Jr., secretary and general manager of the *International Journal of Surgery*, received his diploma from the Baltimore University School of Medicine, April 19.

Stay for Dr. Conrad.—Counsel for Dr. Conrad, convicted of malpractice, have obtained from Justice Blanchard of the Supreme Court a stay of proceedings pending the hearing of an application for a certificate of reasonable doubt.

Clinic for Drunkards.—A clinic for the cure of the alcoholic habit has been established by the Salvation Army in its barracks on West Thirtieth Street for the very poorest classes. All that is necessary to gain treatment is to make known a desire to reform.

Physicians for Office Buildings.—The board of health has received communications urging the enactment of a city ordinance compelling every office building in the city, having a floor space of 50,000 square feet, to have a physician on hand at all times.

College Raises Fees.—The trustees of Columbia University will increase the annual fees for tuition from $200 to $250. The students put in a petition asking to have the proposed change made not applicable to students who had already matriculated.

Contagious Diseases.—There were reported to the board of health for the week ended April 9, 1904: 1,706 cases of measles, with 49 deaths; 474 cases of scarlet fever, with 30 deaths; 417 cases of pulmonary tuberculosis, with 200 deaths; 387 cases of diphtheria, with 70 deaths; 101 cases of varicella, 27 cases of whooping cough with 5 deaths, and 22 cases of typhoid fever, with 8 deaths. There were also 429 deaths from pneumonia, and 29 deaths from cerebrospinal meningitis.

Gift to Speedwell Society.—At the second annual meeting of the Speedwell Country Home Society for Convalescent and Abandoned Children, Mrs. Andrew Carnegie promised to equal the total of a donation to the society from other sources for the opening of a tuberculous camp within easy reach of New York City. The society asks for $100,000 in order to carry on the work of boarding convalescent children from the tenements in carefully selected country homes, as hospital experience has demonstrated that many children on their return to homes in the tenements soon sicken again and die.

Ill Treatment Alleged.—A coroner's jury has rendered a verdict that Ludwig Knacke died in the Manhattan State Hospital, March 29, from injuries inflicted in that institution. Coroner Brown held John Shea, Walter S. Reilly and Thomas H. Reilly, nurses, to the grand jury. An autopsy revealed the fact that Knacke had twelve ribs broken. At the hospital it was stated that Knacke was suffering from injuries when he was taken in. Dr. Knapp of the hospital made out the death certificate without mentioning the fractured ribs. Later, however, he amended the certificate showing fracture of the sternum and ribs.

Personal.—Dr. T. M. Cheeseman has been appointed a trustee of Columbia University to fill the vacancy caused by the resignation of Dr. Edward L. Trudeau.——Dr. George M. Lefferts, who was recently presented with a loving-cup by his clinical assistants on the occasion of his having been made professor emeritus in the College of Physicians and Surgeons, was the recipient of another loving-cup from the senior class.——Dr. William K. Simpson will succeed Dr. Lefferts as professor of laryngology.——Dr. John A. McCorkle of Brooklyn was made a member of the advisory board of the health department.

PENNSYLVANIA.

New Medical Inspector.—The State Board of Health has appointed Dr. Daniel Dechert, Schuylkill Haven, quarantine physician and medical inspector of Schuylkill county, vice Dr. Andrew H. Holberstadt, Pottsville, resigned.

Smallpox in Shamokin.—Several cases of smallpox exist in Shamokin, and the disease continues to spread. In view of this, the State Board of Health has notified the inhabitants that unless they are vaccinated it will be necessary to close the factories and collieries.

Typhoid at Lehigh University.—Several cases of typhoid fever have been reported among the students at Lehigh University. There are also a few cases in the town. The cause is attributed to the bad water. It was only a year ago that a similar outbreak occurred when at one time there were nearly 200 cases of the disease.

Philadelphia.

Examination for Internes.—The examinations for resident internes at St. Joseph's Hospital will be held May 2. Six appointments are to be made.

Ailments Exclude School Children.—The report of the assistant medical inspectors detailed to examine public school pupils show that 57,388 children were examined from April 4 to 14, inclusive. As a result, 1,111 pupils were excluded from the schools visited because of physical ailments.

Jefferson's Summer Course.—Jefferson will conduct a summer course for undergraduates and graduates in medicine for six weeks. The course will consist of practical work in embryology, normal and pathologic histology, morbid anatomy, bacteriology, and hematology, given to small classes.

Tradesmen Help Fight Typhoid.—The Trades' League, at its last meeting adopted resolutions to assist the authorities in combating typhoid fever. They will send out over 2,000 circular letters to business firms included in their membership, asking them to furnish their employes with water free from germs. The letter describes means by which the water can be rendered germ free.

Medical Club Receives.—The quarterly reception of the Philadelphia Medical Club was held April 15. Dr. William B. Ulrich, Chester, president of the Pennsylvania State Medical Society, was the guest of honor. Previous to the meeting Dr. Edward E. Montgomery, president of the club, gave a dinner in honor of Dr. Ulrich, at which were present Drs. Henry L. Orth, John B. Roberts, Francis P. Ball, and William M. Welch, all ex-presidents of the Medical Society of the State of Pennsylvania. Others present were Drs. Hobart A. Hare, Walter M. Pyle, L. Webster Fox, and J. Gurney Taylor.

Health Report.—There was a slight decrease in the number of typhoid cases reported during the week ended April 16, but still the disease prevails to a marked extent throughout the entire city, except in the two wards supplied with filtered water. The number of cases reported during the week was 359, with 29 deaths. During the previous week there were 389 cases reported and 30 deaths. There was a slight increase in smallpox cases during the week, the number reported being 25, an increase of 5 over the preceding week. The number of deaths from smallpox reported was 5, the same as for the previous week. The deaths from all causes numbered 570. This is a decrease of 27 from those of last week, and an increase of 40 over the corresponding week of last year. Deaths from pneumonia still continue high, 81 being credited to this condition; 71 were due to pulmonary tuberculosis, 46 to nephritis, and 38 to heart disease.

TENNESSEE.

Personal.—Dr. John W. Maddin, Jr., Nashville, fell from a log while fishing near Sadlersville, April 14, and dislocated his shoulder.

St. Thomas Hospital Report.—During the year 246 major operations were performed at St. Thomas Hospital, Nashville, with 3 deaths.——Dr. H. C. Brown was elected resident physician, vice Dr. William C. McCabe, term expired.

Many Graduate.—The medical department of the University of Tennessee, Nashville, graduated a class of 30, April 4.——On March 31, a class of 42 received diplomas from the University of Nashville Medical Department.——Vanderbilt University Medical Department, Nashville, held its graduating exercises, April 12, and conferred diplomas on a class of 33.——Chattanooga Medical College celebrated its fifteenth anniversary, April 4, graduating a class of 37.

Smallpox.—During the six months ended March 15 there were 3,567 cases in Hamilton County, with 70 deaths. The following counties and cities had more than 100 cases: Memphis, 443; Knoxville, 435; Knox County, 425; Union County, 250; Campbell County, 240; Monroe County, 141; Green County, 110; Shelby County, 107, and Robertson County, 106. Thirty-three counties are reported entirely free from the disease. Hamilton County still has 439 cases; Memphis, 87 cases and Knoxville, 33 cases.

TEXAS.

Held Up.—Dr. John J. Pendergrass, Leonard, was held up in his barn while getting ready to make a call, April 11, and robbed of his watch and other valuables.

State Association Meeting.—The State Medical Association of Texas will hold its thirty-sixth annual meeting at Austin, April 26-29. The house of delegates assembles April 25 at 2 p. m.

Not Dead.—Dr. William Burgess, San Antonio, after reading obituary notices of himself, announces that he was not in the Iroquois Theater (Chicago) during the fire. His obituary was, therefore, untimely and premature.

New Texas Physicians.—Dallas Medical College held its commencement exercises, April 1, conferring diplomas on a class of 25.——Baylor University Medical Department, Dallas, graduated a class of 10, April 4.——Southwestern University Medical Department, Dallas, on April 2, graduated a class of 11.

Conference at Austin.—More than 75 county and city health officers met in Austin, March 31, at a conference called by State Health Officer Dr. George R. Tabor, Austin, to take concerted action to prevent the invasion of yellow fever into Texas. Dr. Tabor urged uniform action in the work of disinfection and thorough sanitation. The conference adopted as a whole the regulations approved at the recent meeting of the Gulf States Health Conferences.

VERMONT.

Hospital Bequest.—Under the terms of the will of the late Wilbur F. Bramen, Montpelier, Heaton Hospital, in that city, is a beneficiary to the extent of about $30,000.

New Hospital at Proctor.—The new marble, steel and concrete hospital at Proctor, erected at a cost of $35,000, and presented to the town by the Vermont Marble Company was formally opened, March 26, and began to receive patients a few days later. The new building will accommodate about 18 patients.

Dr. Grinnell Wins Suit.—Dr. Ashbel P. Grinnell, dean of the medical department of the University of Vermont, Burlington, who sued Edward W. Western for $50,000 damages for arrest and false imprisonment, has won his suit, and the jury will pass on the amount of compensatory damages to which he is entitled.

Beginning of State Tuberculosis Hospital.—The $10,000 appropriated by the last legislature to construct a building for segregation of tuberculous insane patients, from the main body, is to be devoted to the erection of a two-story building, which will accommodate 22 patients, and to which male patients will be assigned.

GENERAL.

Large Tetanus Mortality in Manila.—The November, 1903, report of deaths in Manila, shows that 58.5 per cent. of all deaths and 65.5 per cent. of the deaths among Filipinos were of infants less than one year of age. There were 404 deaths among children under one year; their causes are variously reported as convulsions of children, eclampsia and tetanus. The board of health calls attention to the fact that the more prominent symptoms presented by these three causes largely resemble each other, and that there is strong reason for belief that a large number of the deaths that occur in the first month after birth depend on tetanus infection at the umbilicus. An attempt is being made to reduce this mortality. Another cause of infant mortality is exposure to cold due to non-use of sufficient clothing because of poverty or ignorance.

FOREIGN.

Concealment of Tattooing.—A female criminal has recently been on trial at Paris, who has been able to escape punishment several times by failure to identify on the part of her accusers. She claimed that she could not be the person sought, as her accusers could not have failed to note some extensive tattooing marks on her arm, as she showed the court, and yet no one had seen them, as her accusers confessed. A chemist was finally found who produced a cosmetic which caused the immediate disappearance of all evidences of tattooing—its effect lasting several hours. She had used some preparation of the kind to disguise her identity during her crimes, and had escaped justice for years by this means.

Medicolegal Evidence of Strangulation.—A young man was on trial at Mans, France, charged with strangling a young woman. The medicolegal experts, Drs. Blaise and Persy, testified to the strangling from the signs of congestion found in the lungs of the cadaver, the cyanosis of the lips, the swollen tongue projecting beyond the teeth and the foam that had collected in and around the mouth. They thought that the victim must have been strangled for one-half to four minutes to produce these signs. Brouardel did not see the corpse, but his testimony controverted that of his colleagues. He affirmed that the findings reported by the other experts indicated that the death of the young woman had been due to inhibition. She had succumbed to a violent excitation, affecting the region of the neck, which had caused the sudden stoppage of the heart. If she had not been taken by the neck she would not have been dead, but there was no evidence of strangling. None of the signs mentioned are proof of strangulation. The experts debated the matter an hour in the court, Persy concluding with the remark that "Brouardel's declarations leave us nothing to do but to make a bonfire of our text-books on medicine, for they contain scarcely anything but errors." The prisoner was acquitted of the charge of deliberate murder, and condemned merely to three years in prison.

LONDON LETTER.

Exemption from Vaccination.

The extent to which persons make use of the vaccination act of 1898, which exempts from vaccination children whose parents have a "conscientious objection" to the proceeding, is revealed by figures given by the president of the local government board. The number of certificates of exemption granted amounts approximately to 387,000. The greater number—200,000—were granted between the passing of the act and the end of the year 1898. This was due to the fact that certificates could be obtained during the four months after passing the act in respect of all children born prior to that date, while in respect of children born after that date the certificate must be obtained within four months of the birth of the child. How many of the exempted have been attacked by smallpox is not known, but several cases have been reported. No doubt in the future these exemptions will furnish an excellent soil for an epidemic of the disease.

The Sporozoa in Men and Animals.

Professor Minchin of the University of London has delivered a series of lectures on the sporozoa group of microbes which have become very important in connection with the etiology of malaria and other tropical diseases and cancer. He pointed out that the sporozoa were a group of protozoa widely distributed in nature and universally parasitic. There is perhaps no species of worm, mollusc, crustacean, insect or vertebrate which is not liable to become the host of some sporozoon. Their characteristics are in direct relation with their habit of life as internal parasites. Their nutriment is always fluid, the blood plasma or juices of their host, which are absorbed osmotically. Hence, none of the organs for ingesting or digesting solid food, so frequent in other protozoa, are ever found. The sporozoa are very fertile, an abundant progeny of several hundreds of motile spores (swarm spores) being liberated from the body of the parent within the tissues of the host. Thus the common earthworm harbors a sporozoon (monocystis agilis) which infests the vesiculi seminales and lives within the sperm mother cells. Around the margin of these cells the spermatozoa develop while the parasite grows within the cell until it attains full size and becomes covered with a layer of spermatozoa. The growing parasite is pear-shaped and consists of a single nucleated protoplasmic body which soon issues from its spurious covering and leads a free life (sporont stage). Sporonts when fully grown conjugate in pairs or gametes. Each pair secretes a cyst wall within which the protoplasm and nuclei undergo segmentation into numerous small oval masses of nucleated protoplasm (zygotes). Each zygote divides by repeated fission into eight smaller organisms within a single covering (sporozoites). These undergo no further development in the earthworm. But when the latter is devoured by birds the sporozoites are set free and pass out with the feces to be swallowed by the worm and so repeat the cycle.

The Pasteur Institute of India.

The annual report of the Pasteur Institute of India contains some interesting facts. In the year August, 1902, to August, 1903, 584 patients underwent antirabic treatment. Of these 269 were Europeans and 315 were natives. There were six failures, a percentage of 1.02. In addition there were six cases in which treatment failed because patients went too late to the institute. These cases are not counted as failures because the nerve centers were invaded before it was possible to produce immunity. In such a case hydrophobia sets in with certainty within fourteen days. Lieutenant-Colonel Semple, director of the institute, points out that the only trusworthy test of a rabid brain or cord is inoculating an animal, and that only a small portion of the brain, cord or medulla need be sent to the laboratory in sterile neutral glycerin. An antirabic serum is prepared to improve the treatment in badly bitten and late cases, by diminishing the time required to produce immunity. The serum is derived from young, healthy ponies highly immunized with the virus of rabies. The results were most satisfactory, and as the serum destroys the virus in a mixture it is thought that it may be valuable as a first dressing for the bite and for inoculation into the tissues around. These points are being investigated. Injected hypodermically it has no effect in preventing rabies inoculated subdurally. In badly bitten and late cases the object is to confer as soon as possible a high degree of immunity. With this serum a passive immunity is conferred while the patient is developing the more durable active immunity which can be attained only by inoculation with the virus. Cultures of anthrax bacilli were obtained so attenuated as not to convey the disease to the animals on which they were used but strong enough to confer active immunity. Anti-venomous serum is now being sent out from the institute for use throughout India. The horses used in preparing it are immunized with cobra venom, with viper venom, and with mixed venoms. Children and persons of feeble physique require large doses of antivenene. In a case of cobra bite when the patient is seen early and before symptoms have occurred the antivenene may be injected hypodermically in the loins. A patient may be saved at a much later stage by giving the antivenene intravenously. The report is a very valuable one, and maintains the reputation of the Indian Medical Service for scientific work.

The London Milk Supply.

The dangers arising from contamination of the London milk supply have been previously referred to in The Journal. The question of the control of the milk supply has given rise to much discussion recently at the Society of Medical Officers of Health. The society resolved to urge the local government board to carry out its statutory powers by which it may make general and special orders dealing with the registration of dairymen, inspection of cattle, sanitation of dairies, cleanliness of milk vessels, etc.; to bring in legislation to give effect to the recommendations contained in the report of the departmental committee on food preservatives and coloring matter, which was issued in 1901; and to ensure the carrying out of the dairies orders of 1885, 1886 and 1889, especially in rural districts. It seems that most of the dirt in milk finds its way into it before it reaches the town. Consequently Mr. Wynter Blyth, health officer for the metropolitan borough of Marylebone, recommends an organized system of inspecting milk at railway stations and in the yards of large contractors.

Plague in South Africa.

In Johannesburg since the first report of plague, on March 20 down to April 5, there have been 128 cases, of which 15 were in white people. The deaths amount to 70, of which 7 occurred in whites. The great majority of the patients are Asiatics. The report of the health officer for the year ending June, 1903, gives support to the suspicion expressed by Sir Walter Foster (a well-known physician) in the house of commons, that seeds of plague must have lurked in the town to account for the sudden and startling announcemenet of 30 deaths in 38 cases. The report describes 8 cases of suspected plague. Three occurred in April of last year, and the symptoms were so striking that the medical attendants regarded them as plague, but bacteriologic examination was negative. In January, 1903, there was a notable mortality among rats, but the bodies were examined with negative results. In April rats died in large numbers in the market buildings, and the bodies of 38 were sent to the government bacteriologist, but were too decomposed for examination. Alarmist rumors were circulated at the time, but were contradicted on the ground that plague bacilli were not found. The recent outbreak gives strong grounds for believing that rats have been dying of plague for many months, and that Johannesburg has been long contaminated with the disease. In Cape Colony during the two weeks ending March 12, 8 fresh cases and 2 deaths are reported from Port Elizabeth. Capetown appears to be the only place in South Africa which has eradicated plague after it has been established. This success is attributed to the extermination of rats by the use of Danysz's virus.

Great Increase of Plague in India.

In the weeks ending March 5, 12 and 19 the deaths from plague in India numbered 28,919, 33,517, and 40,527 respectively—the latter two mortalities far exceeding any previously recorded. Since the disease appeared in 1896 the highest weekly mortality occurred for three weeks in April, 1903, when it amounted to 30,000.

DUBLIN LETTER.

The Health of Dublin.

The annual report of the Dublin Sanitary Association draws attention once again to the scandalous condition of the health of Dublin. Judged on theoretical grounds there would seem to be no reason why Dublin should not be an exceptionally healthy city. Lying between open country and open sea, easily drained and on dry soil, supplied with water of unquestionable purity, with its population largely suburban, it yet has the highest death rate of any city in Europe. At the present time, although we are unusually free from epidemic disease, our death rate is the same as that of Calcutta where bubonic plague is present. Curiously enough the rate of zymotic disease is, as a rule, low in Dublin, the chief mortality being due to tuberculosis and diseases of the respiratory system. One would expect that the health authorities would have made some move to cope with the fearful tuberculosis plague which decimates our population, but not a finger has been lifted by them. Anything that has been done has been accomplished by the energy of such voluntary bodies as the National Association for the Prevention of Tuberculosis, while the Dublin health committee sits dumb. No attempt is made to prohibit spitting, either in the streets or in public conveyances; no attempt is made to render tuberculosis a notifiable disease; none to provide public sanatoria or isolation hospitals for sufferers. Four years ago the lord lieutenant appointed a committee to inquire into the causes of the high death rate in Dublin. In its report various suggestions, obvious enough, were made to the public health committee. Not one of them has yet been carried out. Two years ago, smallpox was rampant in London, Liverpool, and Glasgow—all in daily communication with Dublin. No provision was made to meet its probable spread to this city, so that when one or two cases were imported they had to be treated in an ordinary fever hospital. Infection was there allowed to spread, and Dublin was barely saved from an epidemic. Calling for close attention also is the high rate of infant mortality. More than one-third of the deaths occurring annually are of children under five years of age, and of these the majority are uncertified. It seems hopeless to expect our authorities to stir themselves to any activity to promote the public health, and as long as the interests of publicans and slum owners are considered of paramount importance, Dublin will retain its pre-eminence as the most unhealthy city in the world where plague is not raging. About half the corporation of the city, from whom the public health committee is elected, are publicans. Our medical officer of health, I should mention, is a knight, a companion of the bath, and probably the best-known diner-out and story-teller in Dublin. He was two years ago awarded the Harben gold medal on account of his distinguished services to hygiene.

A Medical Provost for Trinity College.

The long delay in appointing a provost for Trinity College has been ended by the nomination of Dr. Anthony Traill. Although he never practiced medicine he holds medical degrees, and he is the first medical man who has ever held the post. Indeed, with the single exception of the famous Hely Hutchinson, who held office toward the close of the eighteenth century, he is the first layman to do so. Dr. Traill's appointment is taken as signifying the abandonment by the government of Lord Dunraven's university scheme, as he was its most violent opponent.

Correspondence.

Johnson's Early Sign of Pregnancy Observed in the Fundus.

Boulder, Colo., April 14, 1904.

To the Editor:—Dr. H. L. E. Johnson mentions in The Journal, Feb. 20, 1904, the alternate changing of color, from violet to pink, shown in the vaginal cervix of the pregnant uterus as early as four weeks. An opportunity to observe this sign in the fundus uteri was given us a few weeks since. March 15, 1904, a woman, three and one-half months pregnant, presented herself at the University Hospital (Medical Department, University of Colorado), for relief from intestinal obstruction. Her condition was so grave that it was thought advisable to make an exploratory incision. The incision revealed a right parovarian cyst with twisted pedicle. During the removal of the cyst, the fundus uteri was in plain view and the delicate successions from a pale to a bright pink were truly beautiful. The alternations occurred exactly every sixty seconds. They were not a gradual shading from a pale to a bright pink or vice versa. The change in color began in the center of the fundus, passing outward in the form of a circle toward the periphery in a marked, clear-cut circular wave. The patient made an uneventful recovery without interruption of the pregnancy.

L. M. Giffin, M.D., and O. M. Gilbert, M.D.

College Credit for Medical Study.

New York City, April 13, 1904.

To the Editor:—In the first editorial in The Journal, April 9, on page 956, the Medical College of Cornell University is mentioned as giving a six-year course, at the end of which the A.B. and M.D. degrees can both be obtained. Kindly note that this is an error. The university, during the first four years of the existence of its medical department, did have such a course, but since 1902 the time required for obtaining the combined degrees has been extended to seven years. In spite of this extension of time more students every year have considered it advantageous to take their A.B. degree as a precedent to entering the medical course. I trust that you will correct the statement you have made, as The Journal has such wide circulation.

John Rogers, Jr.,
Secretary Cornell University Medical College.

Lactagol—To Promote Lactation.

New York City, April 12, 1904.

To the Editor:—In The Journal, March 12, in the department of "Current Medical Literature," there is an abstract from an article in the *Berliner klinische Wochenschrift* on lactagol [page 744, abstract 80]. In reference thereto we call your attention to the fact that you make it appear that lactagol is a powdered product of cottonseed. We are just in receipt of a communication from Messrs. Pearson & Co. of Hamburg, the manufacturers of the preparation, in which we are requested to inform you that the preparation is an extract of cottonseed and not the cottonseed itself.

Lehn & Fink.

Queries and Minor Notes.

Anonymous Communications will not be noticed. Queries for this column must be accompanied by the writer's name and address, but the request of the writer not to publish his name will be faithfully observed.

LETTER HEADS.

It is not always possible to tell the character of a man by his letter head, but sometimes it is possible to make a pretty good guess. A physician from a western state writes his letters on paper, in the upper right hand corner of which appears this card:

> THE HABIT CURES, SURGERY, and special work. The Ultra Violet Rays. Betz Hot Air Apparatus, local and full body. Robertson Comminuter for nose, ear, throat and lung work. Alkaloidal and Specific Medicines—large supply. Careful diagnosis, up-to-date drugs and methods. United States Pension Examining Surgeon.

Marriages.

Lewis J. Daniels, M.D., to Miss Anna Jung, both of Milwaukee, April 20.

Foster F. Potter, M.D., to Mrs. Grace E. Ranios, both of New York City, April 8.

Fletcher K. White, M.D., Sewickley, Pa., to Miss Anna B. Graff, at Duluth, Minn., April 7.

Thomas P. Davis, M.D., Nashville, Tenn., to Miss Myrtle Bass of Linwood, Tenn., April 5.

Roy V. Baketel, M.D., Manchester, N. H., to Miss Helen Tenney of Methuen, Mass., April 6.

George S. Bubb, M.D., McKee's Rocks, Pa., to Miss Sara N. Brown, on Neville Island, Pa., April 6.

Charles W. Cole, M.D., Norton, Kan., to Miss Maud Alice Daggett of Phillipsburg, Kan., March 30.

Austin Fox Riggs, M.D., to Miss Alice, daughter of Dr. Charles McBurney of New York City, April 4.

R. Quarles McClure, M.D., Forrest, Texas, to Miss Fae McClelland of Mount Pleasant, Texas, April 7.

M. Martha MacVean, M.D., Nebraska City, to William Edmonds, M.D., of Erie, Pa., at Chicago, April 4.

Thomas Littleton Savin, M.D., Baltimore, to Jessie Ella Sweet, M.D., of Pine Bluff, Ark., at Baltimore, April 6.

Charles W. Keel, M.D., Newport News, Va., to Miss Virginia Lesueur, at New Canton Court House, Va., April 6.

Joseph D. Condit, M.D., New York City, to Miss Katherine Aylett Guernsey of Port Hope, Ont., in New York City, April 5.

Deaths.

Sarah Fowler Stockwell, M.D. University of Michigan, Ann Arbor, 1876, a member of the American Medical Association, the Indiana State Medical Association, and of the St. Joseph County Medical Society, one of the pioneer woman physicians of the west, died at her rooms in South Bend, Ind., April 2, from cancer, after an illness of several months, aged 62.

John I. Skelly, M.D. Detroit Medical College, 1869, a member of the American Medical Association, and a surgeon of repute, a member of the hospital corps in the Civil War, died at his home in Pekin, Ill., April 9, from apoplexy, aged 57. Tazewell County Medical Society, at a meeting held April 12, adopted resolutions of regret.

J. Howard Rabe, M.D. Jefferson Medical College, Philadelphia, 1894, of Clyde, Ohio, died at a hospital in Philadelphia, April 2, after an operation for the removal [illegible] 7. At a meeting of the Sandusky County [illegible] a committee was appointed to draft resolutions of eulogy and regret.

Josiah C. Donham, M.D. Medical School of Maine at Bowdoin College, Brunswick, 1867, in 1889 representative to the state legislature and for the last four years superintendent of schools in Hebron, Maine, died at his home in that place, April 7, aged 66.

John P. Manker, M.D. Chattanooga (Tenn.) Medical College, 1894, instructor in physical diagnosis in that institution, died at his home in Chattanooga, April 9, from paralysis, after an invalidism of seven years, the result of a fall from a horse.

Cyrus Kindrick, M.D. Jefferson Medical College, Philadelphia, 1848, one of the organizers of the Maine Medical Association, died at his home in Litchfield Corner, Maine, where he had practiced for 52 years, April 4, aged 78.

Thomas S. Clark, M.D. Medical College of Ohio, Cincinnati, 1873, sometime president of Lewis County (Ky.) Board of Health, died at his home in Vanceburg, April 4, from paralysis, after a short illness, aged 55.

James H. Crabbs, M.D. Eclectic College of Medicine, Cincinnati, 1859; College of Physicians and Surgeons, Keokuk, Iowa, 1872, died at his home in Fremont, Neb., April 9, after an illness of two years, aged 77.

Clinton Joseph Schadt, M.D. University of Pennsylvania, Philadelphia, 1890, for eleven years a surgeon on transatlantic liners, died at his home near Egypt, Pa., April 5, from Bright's disease, aged 40.

Philip Bissell, M.D. College of Physicians and Surgeons, New York, 1902, a member of the house staff of the New York Hospital, died in that institution, April 10, from pneumonia, aged 27.

Weller Roos, M.D. Bellevue Hospital Medical College, New York, 1883, died at his home in Chenango Forks, N. Y., March 31, from consumption, after an illness of ten years, aged 50.

John E. Bradbury, M.D. Medical School of Maine, Bowdoin College, Brunswick, 1884, died at his home in Rockland, Mass., from tuberculosis, after a lingering illness, April 7, aged 44.

Erastus P. Fairmans, M.D. College of Physicians and Surgeons, New York, 1854, a surgeon in the Army during the Civil War, died at his home in Hardwick, Vt., April 6, aged 74.

Francis M. Harris, M.D. Cincinnati College of Medicine and Surgery, 1863, died at his home in Vincennes, Ind., April 4, from cancer, after a long illness, aged 67.

Emanuel L. Howerter, M.D. University of Pennsylvania, Philadelphia, 1889, of Kempton, Pa., died recently at the home of his parents in Allentown, Pa.

Peter S. Duff, M.D. Homeopathic Hospital College, Cleveland, 1870, was found dead at his home in Herman Station, near Butler, Pa., April 2, aged 80.

James S. Dennison, M.D. Willamette University, Salem, Ore., 1872, formerly of Pomeroy, Wash., died at Walla Walla, Wash., April 5, from paresis, aged 54.

Cyrus R. Stuckslager, M.D., surgeon during the Civil War, died suddenly at his home in McKeesport, Pa., from heart disease, April 7, aged 75.

John M. Teal, M.D. Physio-Medical College, Cincinnati, 1862, died suddenly at his home in Findlay, Ohio, from heart disease, April 8, aged 73.

Romain C. Barless, M.D. Jefferson Medical College, Philadelphia, died at his home in Rose, N. Y., April 3, after a short illness, aged 70.

Sylvanus E. Parker, M.D. University of Buffalo, 1877, died suddenly at his home in Naples, N. Y., April 4, from heart disease, aged 53.

Thomas J. Jordan, M.D. Missouri Medical College, St. Louis, died at his home in Hickory Hill, Mo., April 7, from apoplexy, aged 42.

Augustus A. Guy, M.D. Albany (N. Y.) Medical College, 1893, died at his home in Harpursville, N. Y., March 30, aged 44.

J. H. Moran, M.D., died suddenly at his home in Pueblo, Colo., April 2, from heart disease, aged 55.

William J. Maercklein, M.D., died recently at his home in Milwaukee.

Miscellany.

MALPRACTICE DEFENSE AND ITS SUCCESS.

The Result of the Medical Defense Work of the New York State Medical Association.

"The proof of the pudding is in the eating," and "An ounce of practice is worth a cartload of theory," are proverbs that apply to the question of medical defense. Until the last year or two it was a theory whether medical defense was a function that can be performed by the profession itself in its organized capacity. Now practical experience has demonstrated its practicability. The Chicago Medical Society has given its members the protection with such satisfactory results that the council of the Illinois State Medical Association has decided to recommend that it be taken up by the state body. We hope shortly to give a report of the work done in this line by the Chicago Medical Society. At this time we desire to call attention to the fact that among the other work of practical value to its members, taken up by the New York State Medical Association, is that of medical defense, and the remarkable success of this work, as shown by the report covering the fiscal year now closed, is worth more than a passing notice. The following abstract of this report shows how absolutely successful this defense has been, and adds more proof of the contention that most of such cases were purely blackmailing and strike cases.

1. Philip Kronenberger brought an action against Dr. McC. of New York, by an attorney named Robert Kuhnert. The physician brought a counter claim as part of the defense for services. The result has been that up to the present the complainant has not made a move. This is clearly an attempt to defeat the physician's bill, which is sure to fail.

2. An action brought by Dr. J. of New York City against one Harvey to recover on a bill. This action was originally in the hands of a collector, and when the physician threatened suit the person attended threatened to sue for malpractice. Counsel for the association was brought into the case, advised an immediate suit for the bill, and the defendant then set up a counter-claim of malpractice; both were tried and the physician collected his bill.

3. An action brought against Dr. von D. of the Bronx, in which counsel of the association acted as counsel only, the attorney of record having already put in an answer before the application for defense was made. The result was absolutely satisfactory in this case.

4. William Naeher of Buffalo brought an action against Dr. G. of Buffalo; the summons was served in April, 1903; it was recently discovered that the plaintiff had left the state, and counsel went to Buffalo and compelled the discontinuance of the action. This was clearly an action brought for strike, but, of course, failed.

5. Maurice S. Casey of New York City brought an action against Dr. S.; another physician was joined in this action also, the plaintiff charging that both were jointly liable for the death of an infant. This action was brought by Lawyer Oppenheim. This action has never been put on the calendar—doubtless a strike. If the case is ever brought to trial it is hopeless for the plaintiff.

6. Wood, as administrator, brought an action against Dr. W., a well-known surgeon of New York City, in Queens County. The case was tried before Judge Marean and a jury in Long Island City, who returned a verdict for the defendant.

7. An action was threatened against Dr. M. of New York City, a well-known surgeon, in which malpractice was charged. The surgeon promptly turned the case over to the counsel, with instructions to the plaintiff to send all future communications to him. There the case is ended.

8. Another threatened action was that charging Dr. De W. of New York City with malpractice. He has turned over the papers, signed the necessary agreement with the result that nothing has yet been done in the direction of a suit.

9. There are two other actions now pending at Rome and Utica, respectively against Dr. C. of Sylvan Beach and Dr. D. of Boonville, N. Y., one of which will be tried, the other doubtless will be abandoned.

10. This case is that of the Sommervilles, husband and wife, against Dr. Van L., brought by Messrs. Flynn & Kohn, attorneys of Nassau Street, in which it is charged that the damages arose by reason of the defendant going on his vacation. These cases have never been put on the calendar, and were doubtless brought because the physician sued had just purchased a house, and the plaintiff, relying on the rumored timidity of medical men, hoped for a settlement.

None of these actions could have been defended individually for less than $250, many of them for not less than $1,000, showing what a great saving and benefit generally this malpractice defense has become.

Abortion of Acute Tonsillitis with Quinin.—Nine years of experience has convinced a Hungarian confrère, Dr. Szentgyörgyi of Budapest, of the great value of quinin for aborting acute tonsillitis. Its action has proved as specific as in malaria. His communication is quoted in detail in the *Semaine Médicale*, xxiv, 5, 1904. The quinin, he states, must be given for the purpose in two doses of 7.5 grains each, with a half-hour interval, and taken about 7 p. m. Four or five hours afterward there follows an actual crisis as in pneumonia, with sweating, and by the next evening all the local symptoms have disappeared. He adds that this specific action is absent in case of scarlet fever or diphtheria, and the quinin may thus aid in the differentiation of these affections.

State Boards of Registration.

COMING EXAMINATIONS.

State Board of Medical Examiners of Iowa, May 2-3 at Sioux City. Secretary, J. F. Kennedy, M.D., Des Moines.

Illinois State Board of Health, Chicago, April 25-27, and East St. Louis, May 4-6. Secretary, J. A. Egan, Springfield.

Nevada State Board of Medical Examiners, Carson City, May 2. Secretary, S. L. Lee, M.D., Carson City.

Louisiana State Board of Medical Examiners, Tulane Medical College, New Orleans, May 6-7. Secretary, F. A. Larue, M.D., New Orleans.

Mississippi State Board of Health, Jackson, May 10-11. Secretary, J. F. Hunter, M.D., Jackson.

State Board of Medical Examiners of South Carolina, State House, Columbia, May 17. Secretary, S. C. Baker, Sumter.

University of the State of New York, State Medical, Homeopathic and Eclectic Boards, New York, Albany, Buffalo and Syracuse, May 17-20.

Board of Medical Examiners of the State of North Carolina, Raleigh, May 18. Secretary, G. W. Pressly, Charlotte.

Maine Report.—Dr. A. K. P. Meserve, secretary of the Maine Board of Registration of Medicine, reports that at the examination held at Portland, March 23, 1904, 100 questions were asked on 10 subjects, and a percentage of 75 was required. Of the 10 who were examined, 9 passed and 1 withdrew. The latter was a graduate of Syracuse University Medical Department in 1884. The successful candidates were as follows:,

College.	Year Grad.	Per Cent.
Laval University, Montreal, (1897) 85.3, (1892) 87.08, (1901) 83, (1902) 85.8.		
Harvard Medical School	(1903)	90.7
Jefferson Medical College, Philadelphia	(1903)	89.8
Medical School of Maine	(1894)	78.5
Royal Coll. of P. and S., Edinburgh	(1903)	86.3
University of Vermont	(1902)	90.2

Nebraska Report.—Dr. Geo. H. Brush, Beatrice, secretary of the Nebraska State Board of Health, reports that at the written examination held at Lincoln, Feb. 10 and 11, 1904, 80 questions were asked on 8 subjects, and a percentage of 75 was required. The two who were examined passed.

College.	Year Grad.	Per Cent.
Western Medical College, London, Ont	(1901)	80.25
University of London, England	(1898)	94.75

Illinois Report.—Dr. J. A. Egan, Springfield, secretary of the State Board of Health of Illinois, reports that at the written examination held at Chicago, Jan. 14 to 16, 1904, 110 questions were asked on 11 subjects, and a percentage of 75 was required. Of the 43 who were examined 34 passed and 9 failed. They were graduates of the following schools, with grades as follows:

College.	Year Grad.	Per Cent.
PASSED.		
Rush Medical College, Chicago. (1880) 84, (1902) 88, 86,	(1903) 89, 86, 84, 86, 83, 92, 85, 91, 88, 90, 87, 82, 89, 84, 85.	
American Med. Miss. Coll., Chicago	(1901)	85
Hahnemann Medical College, Chicago...(1900) 82,	(1903)	85
Harvard Medical School, Boston	(1880)	79
Harvey Medical College, Chicago	(1903)	79
Chicago Homeopathic Medical College	(1903)	85
Illinois Medical College, Chicago	(1904)	85
Louisville Medical College	(1903)	77
Marion Sims-Beaumont Medical College, St. Louis	(1902)	82
Missouri Medical College, St. Louis	(1896)	82
Northwestern University Medical School, Chicago	(1903)	92
National Medical University, Chicago	(1903)	81
Royal University, Naples, Italy	(1898)	83
University of Iowa, Iowa City	(1885)	79
University of Sciences, Hungary	(1901)	85
University of Tennessee, Nashville	(1891)	83
FAILED.		
Illinois Medical College, Chicago........(1900) 69,	(1904)	73, 69
Coll. of Med. and Surg. (Physiomedical), Chicago	(1903)	71
National Med. University, Chicago....(1903) 58,	(1904)	70
College of Physicians and Surgeons, St. Louis	(1895)	71
Rush Medical College, Chicago	(1886)	67
Royal University, Naples, Italy	(1902)	66

Association News.

AMERICAN MEDICAL ASSOCIATION.

Fifty-fifth Annual Session, at Atlantic City.

To the Members of the American Medical Association, and to Constituent State Associations:

The next annual session of the American Medical Association will be held at Atlantic City, New Jersey, on Tuesday, Wednesday, Thursday and Friday, June 7, 8, 9 and 10, 1904. The first general meeting, which constitutes the opening exercises of the scientific functions of the Association, will be held at 10 a. m., Tuesday, June 7.

The Registration Department will be open from 8 a. m. to 5:30 p. m., on Monday, Tuesday, Wednesday and Thursday, June 6, 7, 8 and 9, and from 9 to 11 a. m. on Friday, June 10.

NEW MEMBERS.

Those who join the Association at its annual session must present certificates of membership in good standing in their state association or in one of its affiliated branches.

THE HOUSE OF DELEGATES.

The House of Delegates of the American Medical Association will convene at the High School Building, Atlantic City, New Jersey, at 10 a. m., Monday, June 6, 1904. Each constituent state and territorial association is entitled to one representative for each 500 of its resident regular members, or fraction thereof. "State associations or societies in counting members for a basis of delegate representation in this House shall count only members in good standing, who pay regular dues to the state association, either directly or indirectly through county societies."

"Members of the House of Delegates shall be elected for a term of two years, and those state and territorial associations entitled to more than one representative are requested so to arrange such elections that one-half of their delegates, as near as may be, shall be elected each year." (Chap. III, Sec. 4, By-Laws.)

GEORGE H. SIMMONS,
Secretary of the American Medical Association.

Clinics in Connection with Atlantic City Session.

The Colleges and Hospitals in Philadelphia have arranged a schedule of clinics and demonstrations which will be complimentary to the members of the American Medical Association. These will be held the week before and the week following the fifty-fifth annual session, June 7 to 10, at Atlantic City. A full schedule will be published soon. Dr. DeForest Willard is chairman of the committee in charge.

Atlantic City Hotels.

For a list of the hotels at Atlantic City and their prices, see THE JOURNAL, April 2, page 912.

The Public Service.

Army Changes.

Memorandum of changes of station and duties of medical officers, U. S. Army, week ending April 16, 1904:

Miller, Reuben B., asst.-surgeon, leave granted in S. O. 66, War Department, to take effect on being relieved from Army Medical School, instead of June 1, 1904.

Moseley, Edward B., deputy surgeon general, leave of absence extended three months and granted permission to go beyond the sea.

Powell, Wm. A., asst.-surgeon, relieved from duty as surgeon on transport *Thomas*, to take effect on arrival of transport at Manila, and will then report to commanding general, Philippine Division for assignment to duty.

Mabee, James I., asst.-surgeon, reports change of status "en route to station" to absent on thirty days' leave.

White, J. Samuel, contract surgeon, granted leave of absence for one month, about April 15.

Fisher, William C., contract dental surgeon, ordered from Fort Brady, Mich., to duty at Columbus Barracks, Ohio.

Navy Changes.

Changes in the medical corps, U. S. Navy, for the week ending April 16, 1904:

Parker, E. G., P. A. surgeon, detached from the *Adams* and ordered to the *Wheeling*.

Odell, H. E., P. A. surgeon, detached from the *Wheeling* and ordered to the *Adams*.

DeVries, J. C., A. A. surgeon, resignation accepted, to take effect April 11, 1904.

Green, E. H., medical inspector, detached from duty as fleet surgeon of the Asiatic Fleet and ordered home and to await orders.

Drake, N. H., surgeon, detached from the *Maine* and ordered to the *Lancaster*.

Kite, I. W., surgeon, detached from the Navy Yard, Norfolk, and ordered to the *Maine*.

Woodward, J. S., asst.-surgeon, detached from the Naval Proving Grounds, Indian Head, Md., and ordered to the *Brooklyn*.

Gill, J. E., asst.-surgeon, detached from the Naval Museum of Hygiene and Medical School, Washington, D. C., and ordered to the *Kearsarge*.

Lumsden, G. P., surgeon, detached from the Naval Recruiting Station, Chicago, and ordered to the Navy Yard, Norfolk, Va.

Biddle, C., surgeon, detached from the *Lancaster* and ordered to the Asiaatic Station, via *Solace*, for fleet surgeon on board the flagship.

Kennedy, J. T. [illegible] d from the Naval Academy and ordered to [illegible] duty to accompany Marine detachment to t [illegible] Exposition, St. Louis.

Wise, A. H., [illegible] from the Naval Hospital, Naval Home, Philadelphia, and ordered to the Naval and Marine Rendz., Chicago.

McCullough, F. E., P. A. surgeon, ordered to the *Wisconsin*.

Smith, C. G., asst.-surgeon, detached from the *Newport* and ordered home to await orders.

Campbell, F. E., asst.-surgeon, detached from the Naval Museum of Hygiene and Medical School, Washington, D. C., and ordered to the *Newport*.

Marine-Hospital Service.

Official list of the changes of station and duties of commissioned and non-commissioned officers of the Public Health and Marine-Hospital Service, for the seven days ended April 14, 1904:

Greene, J. B., P. A. surgeon, granted extension of leave of absence, on account of sickness, for sixty days from Feb. 25, 1904.

Warren, B. S., asst.-surgeon, granted extension of leave of absence for one day.

Ward, W. K., asst.-surgeon, granted extension of leave of absence for four days from April 7, 1904.

Stiles, C. W., chief of Division of Zoology, detailed to attend meeting of Medical Association of Mississippi at Jackson, Miss., April 20-22, 1904.

Gregory, G. A., A. A. surgeon, granted leave of absence for three days from April 12, 1904.

Jackson, J. M., A. A. surgeon, granted leave of absence for five days from April 20, 1904.

Rodman, J. C., A. A. surgeon, granted six days' leave of absence from April 12, 1904.

BOARD CONVENED.

Board convened at Stapleton, N. Y., April 18, 1904, for the physical examination of an officer of the Revenue-Cutter Service. Detail for the board: Surgeon Preston H. Ballhache, chairman; P. A. Surgeon A. C. Smith, recorder.

Health Reports.

The following cases of smallpox, yellow fever, cholera and plague, have been reported to the Surgeon General, Public Health and Marine Hospital Service, during the period from April 9 to April 15, 1904:

SMALLPOX—UNITED STATES.

California: Los Angeles, March 26-April 2, 2 cases; San Francisco, March 28-April 3, 1 case.
Illinois: April 2-9, Chicago, 8 cases, 1 death; Danville, 4 cases.
Iowa: Des Moines, April 2-9, 1 case.
Louisiana: New Orleans, April 2-9, 2 cases, 1 case imported.
Maryland: Baltimore, April 2-9, 1 case.
Michigan: April 2-9, Detroit, 1 case; Grand Rapids, 2 cases.
Missouri: St. Louis, April 2-9, 11 cases.
New Hampshire: Manchester, April 2-9, 1 case.
New Jersey: April 2-9, Camden, 2 cases; Trenton, 2 cases.
New York: Buffalo, April 2-9, 2 cases.
Ohio: April 1-8, Cincinnati, 3 cases; Cleveland, 3 cases; Dayton, April 2-9, 4 cases, 1 death.

Pennsylvania: April 2-9, Johnstown, 1 case; Philadelphia, 20 cases, 5 deaths; Pittsburg, 5 cases, 1 death, 1 case imported.
South Carolina: Charleston, April 2-9, 4 cases.
Tennessee: Nashville, April 2-9, 2 cases.
Wisconsin: Milwaukee, April 2-9, 2 cases.

SMALLPOX—FOREIGN.

Africa: Cape Town, Feb. 6-13, 3 cases.
Argentina: Buenos Ayres, Feb. 1-29, 58 deaths.
Austria: Prague, March 12-19, 1 case.
Brazil: Rio de Janeiro, March 6-13, 45 cases, 30 deaths.
Canada: Winnepeg, March 26-April 2, 4 cases.
China: Hongkong, Feb. 21-28, 2 deaths; Shanghai, Feb. 27-March 5, 6 deaths.
Colombia: Barranquilla, March 21-27, 1 death.
France: Paris, March 19-26, 16 cases, 1 death.
Great Britain: Dundee, March 12-19, 4 cases; March 19-26, Edinburgh, 5 cases, 2 deaths; Leith, 10 cases, 1 death; London, 54 cases (erroneously reported April 9 as 84); Manchester, 12 cases; Newcastle-on-Tyne, 3 cases; Nottingham, 11 cases, 1 death; South Shields, 1 death; Glasgow, March 25 April 1, 18 cases, 2 deaths.
India: Karachi, March 6-13, 14 cases, 3 deaths.
Japan: Nagasaki Ken, to March 8, 27 cases.
Mexico: Vera Cruz, April 2-9, 1 case.
Russia: St. Petersburg, March 12-19, 9 cases, 5 deaths.

SMALLPOX—INSULAR.

Philippine Islands: Manila, Feb. 13-20, 1 death.

YELLOW FEVER.

Brazil: Rio de Janeiro, March 6-13, 6 cases, 1 death.
Ecuador: Guayaquil, March 12-19, 4 deaths.
Mexico: Vera Cruz, April 2-9, 1 case.

CHOLERA—FOREIGN.

India: Madras, March 5-11, 2 deaths.
Turkey in Asia: Basra, March 26-31, 5 cases, 7 deaths.

PLAGUE.

Africa: Cape Colony, March 5-12, 6 cases, 3 deaths; Transvaal, Johannesburg, March 20, 8 deaths.
Australia: Sydney, March 10, 1 case.
Brazil: Rio de Janeiro, March 6-13, 4 cases, 1 death.
Egypt: Port Said, March 18, 1 case.
Formosa: Feb. 29-March 6, 96 cases, 49 deaths.
Mauritius: March 3-10, 3 cases.

Medical Organization.

Indiana.

Clark County Medical Society.—Physicians of the county met at Jeffersonville, April 7, and organized a medical society on the standard plan, and elected Dr. David C. Peyton, Jeffersonville, president; Dr. Edward L. Elrod, Henryville, vice-president; Dr. Claude C. Crum, Jeffersonville, secretary and treasurer; Drs. W. Marshall Varble, Harry C. Sharp and William H. Sheets, Jeffersonville, censors, and Dr. Cadwallader Jones, Jeffersonville, delegate to the State Medical Association.

Louisiana.

Webster Parish Medical Society.—Physicians of the parish met at Minden, recently, and with the assistance of Dr. Norwood K. Vahce, Shreveport, councilor for the Fourth District, organized a medical society on the standard plan with the following officers: Dr. Risdon W. Smith, Dubberly, president; Dr. R. C. Thompkins, vice-president; Dr. Shelly F. Martin, Minden, secretary, and Dr. Thomas J. Vance, Minden, treasurer.

Maryland.

Howard County Medical Association.—This association was reorganized on the standard plan at Ellicott City, April 5. The following officers were elected: Dr. William R. Eareckson, *Elkridge, president;* Dr. Thomas W. Linthicum, Savage, vice-president; Dr. William B. Gambrill, Alberton, secretary-treasurer, and Drs. John W. Lacy, Lisbon, Samuel J. Fort, Ellicott City, and Bernard J. Byrne, Ellicott City, censors. All the counties of Maryland now have societies.

New Jersey.

Essex County Medical Society.—By vote of the Essex District Medical Society at its meeting in Newark, April 5, the society was reorganized on the standard plan with the following officers: President, Dr. Richard C. Newton, Montclair; vice-president, Dr. William S. Disbrow, Newark; secretary, Dr. Archibald Mercer, Newark, and treasurer, Dr. Charles D. Bennett, Newark.

Ohio.

Huron County Medical Society.—Dr. Thomas C. Martin, councilor for the Fifth District, met with the physicians of the county at Norwalk, and organized a medical society on the standard plan. Dr. Samuel A. Orwig, Bellevue, was elected temporary chairman, and Dr. Hugh L. Judge, Norwalk, secretary. The election of permanent officers was deferred until the next meeting, April 21.

Texas.

Brazos County Medical Association.—On April 7, Dr. Sam R. Burroughs, Buffalo, councilor for the Eleventh (Brazos Valley) District, met the physicians of the county at Bryan and organized a medical association on the standard plan, with the following officers: Dr. James M. Nicks, Stone City, president; Dr. George W. Emory, Bryan, vice-president; Dr. Paul M. Raysor, Bryan, secretary and treasurer; Drs. A. L. Mondrick, Bryan, Henry L. Fountain, Bryan, and R. H. Wilson, Kurten, censors; Dr. A. L. Mondrick, Bryan, delegate to the State Medical Association, and Dr. Paul M. Raysor, Bryan, alternate.

Washington.

Chelan County Medical Association.—This association met for organization on the standard plan at Leavenworth, April 1. Dr. W. M. McCoy, Leavenworth, was elected president, and Dr. H. A. Saunders, secretary. The other officers will be elected at a meeting to be held in Wenatchee, May 5.

Wisconsin.

Organization.—Up to April 1, 57 out of the 71 counties in the state had been organized on the standard plan.

Society Proceedings.

COMING MEETINGS.

American Medical Association, Atlantic City, N. J., June 7-10.
Texas State Medical Association, Austin, April 26.
Medical and Chirurgical Faculty of Maryland, Baltimore, April 26-28.
Arizona Medical Association, Tucson, April 27-28.
Arkansas Medical Society, Texarkana, May 3-5.
Louisiana State Medical Society, Lafayette, May 3-5.
Nebraska State Medical Society, Omaha, May 3-5.
Kansas Medical Society, Topeka, May 5-7.
Utah State Medical Society, Ogden, May 10-11.
Association of American Physicians, Washington, D. C., May 10-11.
Oklahoma Territory Medical Society, Oklahoma City, May 11.
Illinois State Medical Society, Bloomington, May 17-19.
State Medical Association of Missouri, St. Louis, May 17-19.
Montana State Medical Association, Butte, May 18.
Indiana State Medical Association, Indianapolis, May 19-20.
Iowa State Medical Society, Des Moines, May 18-20.
New Hampshire Medical Society, Concord, May 19-20.
North Dakota State Medical Society, Fargo, May 21-22.
American Gynecological Society, Boston, Mass., May 24.
Connecticut Medical Society, New Haven, May 25-26.
Michigan State Medical Society, Grand Rapids, May 25-27.
American Medico-Psychological Association, St. Louis, May 30-June 3.
Medical Society of the State of North Carolina, Raleigh, June 1.
South Dakota State Medical Association, Redfield, June 1-2.
Maine Medical Association, Portland, June 1-3.
Minnesota State Medical Society, Minneapolis, June 2-3.
American Dermatological Association, Niagara Falls, June 2-4.
American Therapeutic Society, New York City, June 2-4.
Rhode Island Medical Society, Providence, June 3.
Indian Territory Medical Association, Holdenville, June 3-5.
American Academy of Medicine, Atlantic City, June 4-6.
Medical Society of New Jersey, Atlantic City, June 4-7.
American Gastro-Enterological Association, Atlantic City, June 6.
Massachusetts Medical Society, Boston, June 7-8.
Association of American Medical Colleges, Atlantic City, June 7.
American Orthopedic Association, Atlantic City, June 7-9.
American Urological Association, Atlantic City, June 10-11.
Medical Society of Delaware, Lewes, June 14.
Wisconsin State Medical Society, Milwaukee, June 22.

TENNESSEE STATE MEDICAL ASSOCIATION.

Seventy-first Annual Session, held at Chattanooga, April 12 to 14, 1904.

Under the presidency of Dr. I. A. McSwain of Paris.

Addresses of welcome were delivered by Hon. A. W. Chambliss, mayor of Chattanooga, and by Dr. J. R. Rathmell.

The response to these addresses was made by Dr. C. A. Abernathy of Pulaski.

Dr. J. N. McCormack of Bowling Green, Ky., delivered an admirable address on organization. His remarks created a favorable impression. He furnished the secretaries of the county medical societies some valuable pointers relative to this work.

The House of Delegates transacted the business brought before it expeditiously. It met promptly one hour in advance of the scientific sessions, thus enabling the members of the house to hear all the papers that were read and to take part in the discussions. The members agreed that this method of transacting business so as not to interfere with the scientific work was an admirable one.

The address of the president was on the subject, "The Two Sciences—Medicine and Humanity." This will be published in The Journal.

Officers.

The following officers were elected for the ensuing year: President, Dr. Paul F. Eve, Nashville; vice-presidents, Drs.

E. H. Jones, Murphreesboro; G. O. Bicknell, Madisonville, and C. E. Tyree, Trenton; secretary, Dr. Deering J. Roberts, Nashville; treasurer, Dr. W. C. Bilbro, Murphreesboro.

The association decided to meet in Nashville, April 11 to 13, 1905.

(To be continued.)

MEDICAL AND CHIRURGICAL FACULTY OF MARYLAND.

Meeting of the Section on Clinical Medicine and Surgery, held March 18, 1904.

DISCUSSION ON PNEUMONIA.

Some Recent City Statistics.

DR. J. HALL PLEASANTS said 105,971 persons died from the disease in the United States in 1900. The high death rate this winter is a wave on the pneumonia tide which set in several decades ago, and has continued steadily to rise. If anything like the present rate of increase is maintained in the death rate and if the consumption rate continues to fall or even remains stationary, the next census will show pneumonia established as the principal cause of death in the United States. The remarkable comparative rate of increase is shown by a comparison of the census figures of 1890 and 1900 of consumption and pneumonia. Pneumonia deaths, 1890, 76,496; 1900, 105,971; consumption deaths, 1890, 102,188; 1900, 109,750. In other words, in 1890 somewhat over 9 per cent. of all deaths were due to pneumonia, in 1900 over 10.5 per cent.; in the same period the mortality from consumption decreased from 12.23 per cent. to 10.99 per cent. Comparing city with country, the census of 1900 shows for pneumonia mortality per 100,000 inhabitants of cities, 233.1; for rural districts, 135.9; for consumption, cities, 204.8; for rural districts, 134.1. The mortality from pneumonia among negroes is 349 per 100,000, and among whites 184.8. Whites of foreign birth were shown to be much more susceptible to pneumonia than those of American birth. These statistics apply to both lobar and lobular pneumonia.

The statistics for Baltimore were next given for the past 50 years. A chart was exhibited showing that from about 35 deaths per 100,000 in 1850 from pneumonia, the rate had increased by 1875 to 149, and steadily thereafter until in 1903 it reached 206. Particularly high waves of mortality were seen in 1890 and 1900 due to epidemics of influenza; the mortality in 1900 reached about 253. The figures for the present season, so far, show 624 deaths, against 584 for the same period of last year, not such an alarming increase as was to be expected. During the present season, so far, 494 deaths have been reported from consumption. The percentage, therefore, of pneumonia to all deaths in this period is 16.5, and of consumption 13.1. The pneumonia mortality reached its climax with the week ending March 5, when 75 deaths were reported in a total of 302. The figures for the past fortnight are less alarming, and it is improbable that the death rate will reach the high-water mark of 1900. Various explanations of the recent high pneumonia death rate in Baltimore were discussed. Some thought it due to the fire, but the increase did not reach its maximum for three weeks after that, and, moreover, a similar increase is widespread over the country. Climatic conditions are probably the important factors. For only one year could the death rate from pneumonia among negroes be given. Of the 1,101 deaths from pneumonia in 1903, there were 726 among the whites and 375 among the negroes. The negro population of the city constitutes from one-sixth to one-seventh of the whole, and their general death rate is more than twice that of the whites.

Bacteriology, Serum Therapy and Immunity.

DR. WILLIAM H. WELCH said that the present stage of progress did not hold out any hope of a protective antitoxin owing to the low vitality of the pneumococcus in artificial inoculations. It must be confessed that little had been learned from the discovery of the pneumococcus that had aided the diagnosis or treatment, and there was absolutely nothing that could be called a specific in the disease. The germ is in a large percentage a normal occupant of the healthy human throat. Alcoholism and other debilitating conditions lower the power of resistance of the individual and increase the susceptibility to the disease. The idea is growing in Chicago, New York, and other places that the disease is propagated by contagion, as by the consumption sputa and the prevalence of the disease in a number of cases in one house or neighborhood speak for this idea. While this mode of spread must be recognized as a possibility, Dr. Welch thought that the majority of cases are due to the development or relatively increased virulence of the organism in the body.

Experience at the Johns Hopkins Hospital.

DR. WILLIAM OSLER said that after 26 years of hospital practice he found pneumonia everywhere the same disease as it was at the beginning of his career. Variations are seen, but the mortality in all large series of cases is about 25 or 26 per cent. Dr. Osler spoke of the training given his students in the hospital, and said that he believed that if one trained a student properly in pneumonia and typhoid fever, as the Bible suggests, all other things would be added unto him.

Treatment.

DR. I. E. ATKINSON concluded the discussion. There is no specific. He emphasized the need of sleep to the patient, advising the repeated injection of morphin, if necessary. The ice-bag to the affected side may suffice in milder cases. The warm bath gradually cooled is highly efficacious in children. He advised blood-letting, not in the beginning, but later to relieve extreme dilation of the heart. Alcohol and large doses of strychnin are called for for weak heart. Too great care to keep the patient from catching cold is harmful, and too much covering is undesirable. Oxygen is useful, but should be begun early. Saline injections are also useful by diuretic action, carrying off the toxin. The above treatment was for the severe cases. Overmedication is dangerous. One can generally foresee severity in a case and direct his measures accordingly. All expectorants are harmful.

MEDICAL SOCIETY OF THE CITY AND COUNTY OF DENVER.

Regular Meeting, held April 5, 1904.

Dr. W. J. Rothwell in the Chair.

Symposium on Medical Laws.

HON. I. B. MELVILLE, assistant attorney general of Colorado, discussed the relations of osteopathy to the medical laws of the state. He pointed out that the constitutional provisions protecting the freedom of the individual in the enjoyment of his religious beliefs did not extend to any practice that would injure his neighbors, or militate against the general welfare. He cited the mormon church and the practice of polygamy. In the same way, while a man may practice whatever system of medicine he may prefer, and while people of mature minds may choose any system, such practice must be carried on under restrictions that will prevent harm to others or to the community at large. Protection must also be given by the state to the immature and helpless. It is with this end in view that the general police powers of the state permit laws requiring a certain standard of qualification for those engaging in the practice of medicine. The osteopaths, while proclaiming in public and in the lobbies of the legislature that the medical laws were especially aimed at them, when proceeded against for the illegal practice of medicine, had set up the claim that the practice of medicine consisted entirely of the giving of drugs; and that, therefore, medical laws did not apply to them at all, because they gave no drugs. This contention had received some support in the lower courts, but it was opposed by the bulk of decisions in other states, and by two decisions that had been rendered by the Colorado Supreme Court with reference to the medical practice act of Colorado.

In the case of Mrs. Harding, an electropath, who undertook to practice after failing to obtain a license of the State Board of Medical Examiners, the lower court ruled that the medical practice act prohibited her from engaging in her peculiar system of practice without such license; and the supreme court upheld this decision. In the other case a certain Brown assumed the title of M.D., was convicted of illegal practice, and the decision of the lower court affirmed.

Mr. Melville pointed out how the recent verdict against the State Board of Medical Examiners and in favor of an osteopath had been reached. Dr. Van Meter had consulted several leading lawyers who had agreed that "Dr." Bass was violating the medical law. He then took the matter to the district attorney, who concurred in this view, had information drawn, and commenced proceedings. These were quashed by the judge before whom the matter was brought. Then Dr. Bass sued Dr. Van Meter and the State Board of Examiners for damages for malicious prosecution. Although the law and universal practice everywhere protect a citizen from any such suit on account of actions brought through the public prosecutor, Judge Millins ruled that the board of examiners were liable for damages on this account. It had been hoped that through this case a ruling of the Supreme Court might be obtained, defining the relation of the medical practice laws of Colorado to the practice of osteopathy. But the trial in question was so full of errors that the verdict was likely to be set aside without this important point being touched on.

Hon. H. E. Kelley, counselor for the Colorado Medical Legislative League, spoke of some legal experience bearing on the need of organization of the medical profession. The Colorado Bar Association, although it did not include by any means all the lawyers in the state, nor have the support of any law, was a body of such standing, force and activity, that it practically compelled honesty and decency on the part of all who would practice law in Colorado. In regard to the conduct of a legal case, there would be as many opinions as there were lawyers. Some yielding was always necessary. To get any efficient medical law, individual ideas and preferences must be sacrificed. All must agree on the common ground of requiring a searching scientific education of all who would practice *medicine. Those best fitted should be chosen to consider the* situation, and the most practical law to meet it; and then the loyal support of the whole profession should be given to this measure, and to aid those working for it.

He pointed out that when the Sanford bill was before the governor last year, prominent and generally respected physicians had advised him to veto it. There was lack of unity on the part of the medical profession. The first need was to instruct and convert some of the physicians. Then the subject must be explained to the public. When this was done there would be no difficulty in getting support for such measures. In spite of all that is said, the profession is held by the general public responsible for the public health. The medical profession had plenty of influence, if it would unite and use it.

Dr. W. W. Grant, president of the Colorado Legislative League, wished to point out that there were certain things the profession of Colorado were not responsible for. They were not responsible for Judge Mullins, or for the two governors that had vetoed two excellent medical laws. He referred to the Colorado plan of organization and the unanimous approval of it by the National Council of Medical Legislation. He read an editorial from The Journal of the American Medical Association, supporting that plan. The medical profession must fight unqualified practitioners. No self-respecting medical man could vote for one who would degrade our profession to the standpoint of the quacks.

Dr. Edward Jackson said that the effort to define the practice of medicine was an effort to prevent the taking of money under false pretense. Through the work of an educated body of practitioners the words "doctor of medicine" and "medical practice" had come to have a certain significance. To prevent the application of these words to those who did not possess these qualifications was an effort to check misrepresentation and falsehood. The first steps of the quack were to assume the title of "Dr." and to give out that he was engaged in the same kind of medical practice. No one, physician or layman, could afford to assist this form of misrepresentation and falsehood.

Dr. S. D. Van Meter called the attention the committee appointed by the National Legislative Council to draft a form of medical practice act which should serve as a model in all the different states, and which, with only such modifications as were necessary to meet the different state constitutions, should be recommended for universal adoption. He showed a certificate of death by tuberculosis signed by an osteopath, that had been presented at the office of the Denver health commissioner. He wished to point out that the fight was not against the osteopaths especially, but against all those who, professing some new school or cult of medicine, sought through it to evade the laws regulating the practice of medicine. There were sixteen such cults or "pathies" now in existence in this country, and others were liable to spring up at any time. The fight was not against osteopaths, but against any "paths."

The Journal presents below the constitution and by-laws of the league that is referred to above:

CONSTITUTION AND BY-LAWS OF THE COLORADO MEDICAL LEGISLATIVE LEAGUE.

Article I.

The name and title of the organization shall be the Colorado Medical Legislative League.

Article II.

The purpose of this league shall be to form a non-sectarian body through which the united medical profession of the state of Colorado may succeed in improving and in enforcing the medical statutes.

Article III.

Section 1.—This league shall consist of active members, honorary members and guests.

Sec. 2.—The requirements for membership in this league shall be limited only to an avowal of a desire to assist in the promulgation of the purposes of the organization and the payment of the annual dues.

Sec. 3.—Honorary membership may be conferred by a vote of two-thirds of the members present at any regular meeting.

Article IV.

Section 1.—The league shall hold an annual meeting in Denver, which shall be open to all registered and honorary members and guests.

Sec. 2.—The time for holding each annual session shall be fixed by the executive council.

Article V.

Section 1.—The officers of this league shall be a president, two vice-presidents, a secretary-treasurer and a counselor.

Sec. 2.—The officers shall be elected for a term of two years.

Sec. 3.—The five officers of the league shall be known as the executive council, which shall meet from time to time at the call of the secretary, for the transaction of business.

Sec. 4.—The chairmen of the respective committees on legislation from the different state societies shall, as far as practicable, be members of the council, and at all times each school of medicine must be represented.

Article VI.

The funds for meeting the expenses of this league shall be derived from the annual dues of its members and by voluntary contribution.

Article VII.

Section 1.—All elections shall be by secret ballot and the majority of the votes cast shall be necessary to elect.

Sec. 2.—In balloting for any officer, if on the first ballot no one receives a majority of the votes cast, the name receiving the smallest number of votes shall be dropped, and the balloting shall proceed in this manner until an election is had.

Article VIII.

Section 1.—The president shall preside at all meetings of the league.

Sec. 2.—The secretary-treasurer shall give bond for the trust reposed in him, whenever the executive council shall deem it requisite. He shall demand and receive the funds due the society, together with voluntary donations. He shall pay out of the treasury only on a written order from the president. He shall submit his accounts to such examination as the league may order, and he shall annually render an account of the expenditures and of the receipts and funds in his hands.

Sec. 3.—The secretary-treasurer shall perform the ordinary duties of secretary and treasurer for the league and its executive council.

Article IX.

The annual dues shall be $2.00, payable in advance.

Article X.

The chairman of the legislative committee of the National Auxiliary Congressional and Legislative Committee for Colorado, of the Colorado State Medical Society, the State Homeopathic Association and the Colorado State Eclectic Society, shall be, if not among the members of the executive council, ex-officio members of said council.

NEW YORK ACADEMY OF MEDICINE.

Meeting of the Section on Orthopedics, held March 3, 1904.

The Vice President, Dr. Virgil P. Gibney, in the chair.

The paper of the evening was read by John Ridlon, M.D., Chicago, on "The Ultimate Results of the Bloodless Replacements of Congenitally Dislocated Hips." This is published in full in The Journal, April 16 and 23.

DISCUSSION.

Dr. H. Augustus Wilson, Philadelphia, said that Dr. Lorenz had operated on nine cases in the Jefferson Medical College Hospital in Philadelphia, the results of which are as follows: There are three perfect anatomic and functional results. These patients are under two years of age; one a single dislocation, the other double. Three cases have good functional results. By that it is meant that they are so far improved over their former condition as to make the trivial limp apparent only to an expert. This gives 66.6 per cent. successes.

Six out of the nine have good functional results. One was not reduced—a child aged four, who had been previously subjected to various forms of tenotomy, stretching in bed, extension, had worn a brace a considerable length of time. In this case there was failure to produce a reduction. Lorenz attempted reduction and failed, after almost exhausting his strength. It was put up in typical position, and in six months radiograph showed the hip to be not reduced. The ultimate result was great improvement of function.

A double case, in six months, after the original cast was removed, showed apparent typical replacement. The conditions which made it slip were undoubtedly due to the misunderstanding of the physician in charge of the necessity for the weight-bearing feature emphasized by Dr. Lorenz. This child was kept at rest, sitting or lying in bed. At no time was it taught any method of extending the legs to get the hamstrings in full extension. It did not step on its foot for six months. The muscles of both legs were atrophied from disuse, the ham-string tendons were contracted so that the knees could not be straightened, and that made the joint slip from a very shallow acetabulum.

Dr. Lorenz, in June last, saw the case and found it necessary to etherize the child and stretch the hamstrings again. Notwithstanding the second manipulation on the hamstring tendons, both hips slipped.

Dr. Wilson had been surprised at the low valuation that Dr. Lorenz placed on the radiographs in cases of congenital dislocation. Dr. Wilson thought they were useful as a matter of record rather than as a test of conditions.

The radiograph of several cases showed a deep acetabulum, completely deceiving those interested as to the real conditions present, which were found to be filled with cartilage and fibrous tissue.

Casually alluding to the results in the thirty-two cases under his observation in Philadelphia, Dr. Wilson said there had been no paralysis of any sort, nor disturbance of the circulation. In one case there was temporary edema of the vulva, necessitating catheterization for forty-eight hours; after that, function returned.

There is a question as to whether we are justified in considering the classification of perfect anatomic results. Perfect anatomic results do not always give the best functional results, and function is the object always desired. It is clearly impossible to make a new hip that will be anatomically perfect in cases that have been born with abnormal hips, and the highest ideal should be to obtain functional recovery and a functional result is not always obtained in a so-called anatomic replacement.

A boy eleven years of age, by radiograph and palpation, showed a full, anatomically perfect replacement, but he had rigid, stiff hips which possibly might become limbered up after a while, but were far from a functional recovery.

We are making too fine a distinction in classes of cures. If we can form a standard of functional recovery, we will be attaining higher percentage of successful results, and be doing justice more fully to the man who has taught us.

Dr. E. H. Bradford, Boston, said that the congenital dislocations of the hip during twenty years at the Children's Hospital, Boston, had been carefully examined and the results were most encouraging in that it appeared that the percentage of absolute anatomic cures had been steadily increasing. By cures was not meant functional cures, or transpositions, but results by which the head was replaced in the acetabulum with perfect restoration of gait, shown by measurements, by palpation, by observation and by skiagraph record, and it is probable that in the near future these will be the results that the surgeon will expect to attain.

Relapses occur after congenital dislocations of the hip have been reduced, in a large number of cases. Dr. Bradford entirely agreed with Dr. Ridlon that in operable cases, the manipulative method as demonstrated by Dr. Lorenz was the method of choice. This may not, however, be considered a permanent solution of the question. Improvements in technic were to be expected in this as in other branches of surgery.

Relapse, as we understand after-treatment more thoroughly, may be expected to become less frequent. At present manipulative methods are to be tried in all operable cases. Where this fails, owing to a folding of the capsule in front of the reduced head, incision is advisable. In cases with osseous change, operations on the bone are considered.

It would seem that anatomically there is no greater difficulty in the cure of congenital dislocation of the hip than in the cure of congenital club foot, and in the next decade we may consider congenital dislocation of the hip one of the readily curable deformities.

Dr. R. Whitman, New York City, said that from his own experience he could not accept Dr. Ridlon's statistics as representative. In his opinion in properly selected cases (the younger the patient the better the prospect of cure) 40 per cent. of the cases should be perfectly cured by this method. He did not, however, limit himself to the Lorenz operation, but having failed by that method he would recommend arthrotomy. By this means one might assure himself that the head of the femur was actually within the acetabulum, or if the femur were so twisted as to make permanent apposition impossible, one might restore the normal relation by means of osteotomy. Finally the old Hoffa-Lorenz operation might serve as a last resort to assure stability, which was hardly possible without bony support. It was true that the best result by this method could not compare with the perfect cures attained by bloodless reduction. The average result, however, was better than after transposition. He was inclined to think then that when bloodless surgery had found its limit one should supplement it by other surgery, and that by a more comprehensive treatment the results would be greatly improved.

Dr. Whitman said that there were different varieties of transposition which had not been recognized, apparently, in the statistics presented. One was caused by hyperextension, in which the head of the femur was forced too far forward so that it could be felt and seen directly beneath the femoral artery. In cases of this character the limb remained, when the plaster bandage was removed, in an attitude of abduction and extension; motion could be restored only by persistent manipulation, and in some cases an anesthetic might be necessary to lessen the distortion. Yet in this class of cases the final result was likely to be good, and even perfect, because of the permanency of the reduction. If, on the other hand, the head of the femur were just outside the femoral artery, the result was usually unsatisfactory in that the shortening was progressive until the head came to a resting place beside the anterior superior spine. In only one class of cases could such transpositions be regarded as a good result. If, for example, one had transformed a bilateral posterior into a bilateral anterior displacement, the contour of the body was improved and the symmetrical disability was markedly decreased, but if in such a case one side were actually cured and the other transposed, the surgeon might be accused of injuring the patient because the swaying gait had been changed to a noticeable limp. In such a case one should always perform the open operation with the aim of assuring stability, even at the expense of a part of the range of normal motion.

Dr. A. Jacobi, New York City, asked the earliest age at which a patient should be operated on when found to have congenital dislocation of the hip. A case might be discovered when a baby was but a few months old; is any operation in order at this time?

Dr. Newton M. Shaffer, New York City, thought Dr. Ridlon's statistics formed an intelligent and comprehensive basis for judging of the Lorenz operation and its results. His own cases could not be well judged yet, but in all of them—and all were apparently successfully reduced—the tendency to the condition known as the "anterior transposition" was marked. He thought that Dr. Ridlon's statement that this was due, in a large measure, to the conditions produced by the tearing of all the resisting tissues—especially the muscles and nerves, was correct. In the after-treatment of this condition we should study the "adaptive muscular conditions," as he termed it, more closely. Normal muscles shorten and lengthen as opportunity is given—as, for instance, in the acquired talipes equinus associated with the shortened leg in hip disease. In infantile paralysis the shortening of the unparalyzed muscles is always marked. In lateral curvature the same thing is observed. Muscles lacerated as in this operation, for instance, the adductor group, by the force necessary to reduce a congenitally dislocated hip, may be so far injured that it may be years before they can *regain their normal contractility, if* they ever do. Add to this a nerve injury and the condition becomes more complicated. Studying the results which have come under his observation, he said in the future he should give these muscles a much longer time to recuperate before discarding the mechanical protection. *In other* words, after the plaster-of-paris splint is removed, a simple steel support should be applied, as, for instance, in extensive infantile paralysis, embracing the pelvis with a conventional pelvic band controlling the entire limb to and involving the foot, with anteroposterior motion only at the hip, knee and ankle, with or without perineal pads, as indicated. This would place the femur and the hip under the control of the surgeon and prevent any "anterior reposition" and the "weight-bearing" principle could be scientifically applied, while the patient walks about—with the head of the femur in the acetabulum. Massage, etc., could be used to restore the lost muscular power.

He had applied this treatment to two of the patients now under observation at the State Hospital, who are doing well. He wished he had applied it to two others, who have done badly since they left the hospital, with apparently perfect reposition.

Dr. V. P. Gibney, New York City, said that the cases operated on at the Hospital for Ruptured and Crippled are hardly ready for presentation of final results, but he believed the results would compare very favorably with those shown by Dr. Ridlon.

Dr. Ridlon said that the earliest case of congenital dislocation of the hip he had had anything to do with was one of seventeen months. There can be no question that the earlier one operates the easier it is to make replacement and the less the injury. On the other hand, the earlier the operation the more difficult the retention, because the delicate baby's skin does not bear covering as does that of an older child. A baby wets the plaster splint.

One case operated on by him, which he reported on as having relapsed because the splint was wetted and bent (the child flexed and the head went out backward) was operated on by Lorenz. The result was anterior and supracotyloid displacement. It is an annoyance to have to change a plaster splint, reeking with urine, almost every week for eight months. Earlier than eighteen months, one does not recognize the dislocation; generally not until the child has walked.

In one case a child had club foot and congenital kyphosis, coming for treatment when six weeks old; it was not known that she had a dislocated hip until she was nearly three years old. From two to four years is the period of choice—when the child is old enough to be cleanly.

As to Dr. Whitman's remarks that the greatest thing to be desired in the treatment of congenital hips would appear to be stability, the speaker would not agree. He had the pleasure of examining cases operated on and cured by Dr. Whitman in 1900. They were certainly replaced and certainly stable, also certainly stiff, by the cutting operation. Dr. Ridlon did not consider a stiff hip in a good position as good for a patient to use or as desirable as a hip with which he can walk, with just a little limp, which can be bent to a sitting position. He thought it best to get a functional result even if not a perfect anatomic replacement.

Dr. Whitman also spoke of different transpositions. Those cases in which the head has lain back of the artery, Dr. Ridlon had called extreme anterior transposition in contradistinction to those lying to the outer side of the artery and on a level with the acetabulum as shown by the *x*-ray; where the head could be felt but not seen, while those back of the artery can be seen as well as felt by him.

One point was not brought out in the paper—the ultimate result of dislocation of the head, anterior and directly behind the artery. Some results are counted as good if the head is in this position. Dr. Ridlon did not think we knew what the ultimate result would be when the head is back of the artery, but feared that it may arrest development of that limb with growth. It might not happen, but is to be feared. Dr. Whitman says those lying back of the artery do not go up; this is very likely true.

Therapeutics.

[Our readers are invited to send favorite prescriptions or outlines of treatment, such as have been tried and found useful, for publication in these columns. The writer's name must be attached, but it will be published or omitted as he may prefer. It is the aim of this department to aid the general practitioner by giving practical prescriptions and, in brief, methods of treatment for the diseases seen especially in every-day practice. Proper inquiries concerning general formulae and outlines of treatment are answered in these columns without allusion to inquirer.]

Iodin in Enlarged Glands.

Wyatt Wingrave, in British Med. Jour., states that, being specially interested in the supplemental treatment of enlarged glands and adenoids with iodin, he has obtained, after experimenting for many years, an iodin combination that can be given for a considerable period without causing symptoms of iodism while exercising its specific action. The form now used successfully is *iodin in* a loose chemical combination with tannic acid as follows:

℞.	Iodi (pure)	gr. xxxviiss	2	50
	Acidi tannici	ʒi	4	
	Alcoholis (90 per cent.)	ʒx	40	
	Syrupi simplicis	℥iiss	75	

M. Dissolve the iodin in alcohol and add the tannic acid and one ounce of the syrup; heat to just below the boiling point until the solution affords no evidence of free iodin, with starch reaction (about 20 minutes). Cool and add the remainder of the syrup. Sig.: One-half to one teaspoonful before meals, according to age.

Each teaspoonful contains two grains of iodin.

The foregoing is useful in chronic lymphadenitis, associated with or independent of adenoids, enlarged faucial tonsils and large cervical glands.

In atrophic rhinitis gratifying results have been obtained, especially when combined with arsenic. It is also of value in the treatment of bronchocele.

Diarrhea of Typhoid Fever.

The following combination is recommended by the *Dublin Jour. of Med. Science* to check the diarrhea of typhoid fever:

℞.	Bismuthi carb.	gr. x		65
	Sodii bicarb.	gr. v		30
	Cretæ prep. arom.	gr. xx	1	30
	Tinct. opii	gtt. v		30
	Spts. chloroformi	gtt. x		65
	Sodii salicylatis Pulv. tragacanthæ, āā	gr. x		65
	Aquæ q. s. ad	℥i	30	

M. Sig.: To be taken at one dose and repeated as indicated, to check the diarrhea.

Cough in Tuberculosis.

Dr. D. B. King, in an abstract in the *N. Y. and Phil. Med. Jour.*, recommends, in the treatment of the cough in tuberculosis which occurs on rising in the morning, that the patient be instructed to sip slowly a cup of hot milk, to which 15 to 30 grains of sodium chlorid has been added.

For the cough occurring at night he advises the administration of the pilula ipecac. et scillæ (B. P.) grains 5 (.30).

For excessive coughing through the day the following is recommended:

℞.	Pot. citratis	gr. xv	1	
	Liq. ammon. acetatis	ʒii	8	
	Tinct. scillæ	m. xii		75
	Vini ipecacuanhæ	m. x		65
	Aquæ anisati q. s. ad	℥i	30	

M. Sig.: At one dose for the cough.

Or a better combination is as follows:

℞.	Apomorph. hydrochlor.	gr. 1/24		0025
	Morph. hydrochlor.	gr. 1/8		008
	Acidi hydrochlor. dil.	m. ii		12
	Oxymel	m. xx	1	30
	Glycerini	m. x		65
	Aquæ q. s. ad	ʒi	4	

M. Sig.: At one dose.

Or the following containing both apomorphin and heroin:

℞.	Apomorphin. hydrochlor.	gr. 1/24		0025
	Heroin	gr. 1/16		004
	Terebene	m. x		65
	Mucil. acaciæ			
	Syr. tolutani, āā	ʒi	4	
	Aq. camphoræ q. s. ad	℥ss	15	

M. Sig.: To be taken at one dose.

Apocodein is also recommended by the author as of service in checking the cough:

℞.	Apocodeinæ	gr. 1/10		006
	Terebene	m. x		65
	Mucil. acaciæ	ʒi	4	
	Aquæ camphoræ	℥ss	15	

M. Sig.: At one dose.

In cough which persists while the patient is at rest relief is often given by the patient taking moderate exercise.

As an injection in tuberculosis the following is recommended by *Clinica Moderna*:

℞.	Iodi (pure)	gr. viiss		50
	Pot. iodidi	gr. lxxv	5	
	Crys. guaiacol	ʒiiss	10	
	Glycerini (pure)	ʒx	40	

M. To be used hypodermically, beginning with a few drops of the solution.

Diseases of the Eye.

The following combinations are recommended by L. Webster Fox, in *Med. Bull.*, in the treatment of diseases of the eye:

EDEMA OF THE LIDS.

℞.	Liq. plumbi subacet. dil.	ʒii	8	
	Tinct. opii			
	Tinct. belladonnæ, āā	ʒiss	6	
	Tinct. arnicæ	℥i	30	
	Aquæ camphoræ			
	Aq. destil., āā, q. s. ad	℥ iv	120	

M. Sig.: To be applied locally.

[It seems from the ingredients included that great care should be employed in using the foregoing combination.]

CONJUNCTIVITIS.

℞.	Acidi borici			
	Sodii biboratis, āā	ʒss	2	
	Aq. menth. pip.	ʒiii	12	
	Ext. hamamel. dest.	ʒiv	15	
	Aq. camphoræ			
	Aq. destil., āā	℥ii	60	

M. Sig.: Bathe the eyes freely.

OPHTHALMIA NEONATORUM.

℞.	Hydrastin hydrochlor.	gr. iv-vi		25-.35
	Acidi borici	gr. xx	1	30
	Tinct. opii deod.	ʒii	8	
	Aquæ destil.	℥iv	120	

M. Sig.: As an eye lotion.

ULCERS OF THE CORNEA FOLLOWING PURULENT CONJUNCTIVITIS.

℞.	Escrin. sulph.	gr. ¼		015
	Hydrarg. oxid. flav.	gr. ⅛-i		008-.06
	Liq. petrolati	ʒi	4	

M. Sig.: A small amount to be placed in the eye once or twice daily, followed by light massage of the lid.

Acute Rhinitis.

The following combinations are recommended by *Merck's Archives* in relieving the catarrhal condition in acute rhinitis:

℞.	Menthol	gr. ii		12
	Pulv. benzoini	ʒi	4	
	Bismuthi subnit.	ʒiss	6	
	Acidi borici	ʒi	4	

M. Sig.: A small amount to be insufflated into the nose two or three times daily; or:

℞.	Cocainæ hydrochlor.	gr. iss		09
	Iodol	gr. iii		20
	Acidi borici	ʒiss	6	
	Bismuthi subnit.	ʒi	4	
	Acidi tannici	gr. v		30
	Menthol	gr. iii		20
	Pulv. amyli	ʒiiss	10	

M. Sig.: To be insufflated; or:

℞.	Bismuthi salicylatis	ʒiiss	10	
	Pulv. camphoræ	gr. xl	2	65
	Menthol	gr. ii		12

M. Ft. pulvis. Sig.: To be insufflated into the nares three or four times daily.

Veronal in Insanity.

Veronal has been used successfully as a sedative to the nervous system by Wuerth of Hofheim in a great many cases of insanity, according to *Ther. Rev.* After treating 84 restless and troublesome insane women he has noted its relative action to other drugs. He found it to be of great value in the treatment of acute dementia, paralytic dementia, melancholia, senile dementia, idiocy, periodic insanity, epilepsy, hysterical mental disturbance, also in cases of ordinary insomnia.

As a sedative he gave from 3 to 7½ grains (.20-.50). However, double this sized dose may be given if necessary. He administers it dissolved in hot milk, hot tea, or in powder form. It produces sleep in from one-half to two hours. It is equal to double the dose of trional, and does not have that accumulative narcotic action. No ill effects have been noted by the author on the heart, kidneys or digestion.

According to the *Internat. Med. Annual*, 1904, Poly finds this preparation to be a valuable hypnotic given in capsule form in doses ranging from 4 to 12 grains (.25-.75). It is of no service in insomnia due to pain, unless combined with morphin. In some cases drowsiness, headache and dizziness were noted the following day. This preparation is specially recommended for the sleeplessness of morphinists.

[Veronal is a new hypnotic. It is the diethylmalonylurea.]

Medicolegal.

Pregnancy in Rape Case and Improbability of Conception.—The Supreme Court of Iowa says, in the case of State vs. Carpenter, a prosecution for rape, that the pregnancy of the prosecutrix has not heretofore been considered ground for a continuance. Her condition might, of course, appeal to a jury, and tend to enlist their sympathies; but the presence in the courtroom of a child born as the result, or as the claimed result, of a rape, would be quite as potent in this respect. Consequently, there was no error in overruling the motion for a continuance in this case. Indeed, the condition of the woman might well have been good ground for proceeding with the trial at that particular time. The dangers incident to childbirth may well be taken into account when such applications as this are made. A point was sought to be made as to the improbability of the witness conceiving at the time she claimed she was ravished. This was based on the theory that her last menstrual period had so far passed that conception was improbable, and on the further thought that conception at such a time was the more improbable on the state's theory of ravishment. But the court declares that it can not say, as a matter of law, that conception could not occur under such circumstances. This whole matter was for the jury.

Good Health—Aggravation of Existing Infirmity.—The Supreme Court of Georgia holds, in Atlantic & Birmingham

Railroad Co. vs. Douglas, a personal injury case brought by the latter party, that "good health" is a relative term, and does not mean absolute freedom from physical infirmity, but only such a condition of body and mind as that one may discharge the ordinary duties of life without serious strain on the vital powers. In life insurance cases, the court says, it has been held that "good health" does not ordinarily mean freedom from infirmity, and that "good health" or "sound health" means a state of health free from disease or ailment that affects the general soundness and healthfulness of the system seriously. When the party suing in this case alleged, therefore, that she was in good health, her petition was not to be construed as alleging that she was perfectly sound and free from all infirmities; and, consequently, when, under the evidence, it appeared that she was laboring under an infirmity of which she was ignorant, but this infirmity did not interfere with the discharge by her of the ordinary duties of life, and probably would not have ever interfered with her but for the injuries resulting from the negligence of the railroad company, she was not precluded from recovering simply because it developed that the injuries to her were the result, not of the negligence of the company alone, but of that negligence and a pre-existing infirmity, which up to that time had not been the occasion of any inconvenience to her. Or, as the court restates it, *when, in a suit by a female against a railroad company* for damages for personal injuries, it is alleged that she was, prior to the injuries, "in good health," a recovery may be had notwithstanding it appears from the evidence that at the time of the injuries she was laboring under an infirmity of which she was ignorant, and which did not interfere with the discharge by her of the ordinary duties of life, and that the result of the negligence of the railroad company was, not to produce an infirmity, but simply to aggravate the existing infirmity.

Not Liable for Death from Smallpox Communicated by Nurse.—*In reversing the decision in* M., K. & T. Ry. Co. of Texas vs. Freeman, reported on page 1676 of The Journal of June 13, 1903, the Supreme Court of Texas holds that, under the statute of that state, the company was not liable for death from smallpox communicated by an unreliable nurse intrusted by one of its local surgeons with the care of a pest camp. It says that to make the negligence of the surgeon that of the employer required the aid of the rule respondeat superior, the superior or master must answer. This, however, is eliminated by the Texas statute from this class of actions, except to the extent it is made applicable to those falling within the provision giving a right of action for death "when the death of any person is caused by the negligence or carelessness of the proprietor, owner, charterer, hirer of any railroad, steamboat, stage-coach, or other vehicle for the conveyance of goods or passengers, or by the unfitness, negligence or carelessness of their servants or agents." But the servants and agents for whose misconduct liability is created are those engaged in prosecuting, in some way, the business of conveying goods or passengers; and, as in law one person acts as the servant or agent of another only when he acts in the scope of his employment, the death contemplated by the statute must be caused by the servant while prosecuting the business of conveying goods or passengers. Besides, the court thinks it evident that if such a relation as that which existed between the detention camp in question, where one of the company's servants was being taken care of, and the railroad were held to make the keeping of the camp a part of the proper business of the company as owner of the railroad conducting a carrying business, it would be found impracticable to fix a limit at which it would be possible to stop short of the broad proposition that such companies and individuals, merely because they own and operate railroads, or some of the vehicles mentioned in the statute, are responsible for all deaths caused by their employes in any business. Such a construction of the statute would take away all foundation for the discrimination which the legislature has made in the business specified in the statute and other persons and corporations, making the former responsible for deaths occurring in the prosecution of collateral business when others engaged in like collateral businesses are not held to a like accountability.

Prescribing Intoxicating Liquors for Minors.—The Court of Criminal Appeals of Texas has reversed, in Atkinson vs. State, a conviction of a physician for selling liquor to a minor without the written consent of the parent or guardian of the minor. The prescription was in the terms of the law. The minor in question was about 18 or 19 years of age, and the facts for the prosecution and the physician showed that he was sick at the time. The question as to the minority of the patient was not mentioned or discussed between him and the physician, *while the testimony of the latter indicated that, if he had thought about it at all, he would have thought the patient was about 21 years of age, but really that question did not enter his mind. He gave the prescription because the boy was sick and needed it. Furthermore, he proved good character as a physician, man, etc. The transaction occurred in local option territory.* The court treats the case from the standpoint that the physician knew or had reason to believe that the patient was under 21, with the result above stated. It says that the general rule is that, where local option has been put into operation, it constitutes the exclusive system for the regulation or manner of liquor selling in the given locality. The local option law of Texas provides that intoxicants can be sold as a medicine in case of actual sickness in a local option territory, and with no other saving clause, except the sale of wine for sacramental purposes. This is inconsistent with the law prohibiting the sale to minors except on the written consent of the parent or guardian, when liquor is sold on prescription, and, being inconsistent, it must be considered as suspending that law during the operation of the local option law. Aside from the local option law there is another phase of the case well enough to notice. From the authorities the rule is deducible that, where there are statutes like those of Texas prohibiting the sales to minors (and most of the states in the federal union have practically the same law), where the sale is for medicine it is not within the inhibition of the statute prohibiting sales to minors. This question has been frequently decided in the states of the union as well as Texas. Bowman vs. State, 38 Tex. Cr. R. 14; Ball vs. State, 50 Ind. 595; Lindley vs. Braxton, 27 Ind. 56; People vs. Board of Com. 3 Scam. 153; Hooper vs. State, 56 Ind. 156; Elrod vs. State, 72 Ind. 294; Nixon vs. State, 76 Ind. 526; 11 Amer. and Eng. Ency. of Law, 703; State vs. Wool, 86 N. C. 708.

Current Medical Literature.

AMERICAN.

Titles marked with an asterisk (*) are abstracted below.

American Medicine, Philadelphia.

April 9.

1 *The Body Defenses and Syncytioma Malignum. Joseph McFarland.
2 *Non-operative Relief of Eyestrain for the Possible Cure of Epilepsy as Tested in 68 Cases at the Craig Colony. William P. Spratling and George M. Gould.
3 Preliminary Report of a Series of Metabolism Observations Made in Atrophic Arthritis, Hypertrophic Arthritis, Osteitis *Deformans and the Normal.* (Concluded.) Joel E. Goldthwait, Charles F. Painter and Robert B. Osgood.
4 Nervous Complications of Typhoid Fever. Herbert A. Black.
5 Cholecystectomy vs. Cholecystostomy. A Plea for the Plaintiff. Maurice Kahn.
6 *Corneal Ulceration Due to Nasal Infection. S. Lewis Ziegler.

1. **Syncytioma Malignum.**—McFarland reviews the subject of the defense of the organism against overgrowth, and applies the facts to the syncytioma. There must exist, he thinks, between the embryonal and maternal tissues a cytolitic equilibrium, through which the variations favor the embryonal tissues during pregnancy and the maternal tissues after parturition. If the ovum should fail to provide the necessary cytolytic substance, it would be unable to secure an appropriate nidus and sterility might result, or if the cells of the embryo should fail, abortion might be the outcome, or in case they did not resist the antagonistic substance of the maternal tissues until the completion of gestation, miscarriage might result. On the other hand, if the maternal tissues fail in their antagonism, we can conceive that the actively growing syncy-

tium would invade the uterine wall with abnormal rapidity or to an abnormal extent, and that during involution fragments might be retained for an indefinite period, causing local disturbance if quiescent, or disorganization and hemorrhage if active. If the ability of the maternal tissue to resist this invasion was general instead of local the formation of metastatic secondary masses in various parts of the body to which syncytial fragments were accidentally transplanted, would be the result.

2. Epilepsy and Eyestrain.—At the instance of the superintendent of the Craig colony, Dr. Gould visited it in August, 1902, and made a thorough test of the ocular conditions and the benefit of their correction in 78 patients. The number of attacks each patient had had before this study and after was recorded, and in one case in which the patient had grand mal of great severity it seems that arrest was made and a possible cure may be anticipated. He has had no attacks for a period of 11 months. Five previous arrests were possibly sustained by the use of glasses, and there was an apparent decrease of the attacks in 11 cases, though not permanent or so slignt as to make it impossible to say that it was not due to the ordinary fluctuations of the disease. In 33 cases the attacks appeared to be increased, and in 16 there was no change whatever in the symptoms. The experiments, Spratling says, seem to prove that in looking for the cause and cure of epilepsy we must not confine our attention to any single organ and its abnormalities, but must study the whole organism and its parts. He regrets that the experiments, so carefully and scientifically made by Drs. Gould and Bennett, did not yield better results, but it strengthens his opinion that epilepsy is not a "single prescription disease," so to speak, and that the correction of ocular abnormalities alone is not any more likely to cure it than surgical measures on the brain from which so much was at one time hoped. Dr. Gould publishes an addendum to the paper in which he supports his formerly expressed views and thinks that two mistakes were made in conducting the experiments: 1, that young patients and only those with less injured nervous systems should have been chosen, and 2, that resident or frequently visiting opticians and oculists should have been insured to make the retestings and readjustments when necessary. Still he considers that the apparent improvement in 19 out of 57 patients, and the one cure in 57 against one in 80 by all other methods of treatment, indicate the value of the method.

6. Corneal Ulceration from Nasal Infection.—Ziegler points out the ways in which the cornea may be affected from nasal disorder and epitomizes the treatment as follows:

1. The nose should have antiseptic irrigation and local treatment applied.
2. The lacrimonasal duct should be disinfected or dilated.
3. The eye should have a soothing lotion, a mydriatic instilled, and a cauterant applied to the ulcer, if necessary.
4. The diet should be regulated, tonic and antiphlogistic treatment given, and the hygiene generally improved.

Medical News, New York.

April 9.

7 *Tuberculosis of the Spinal Cord, with Reports of Cases of Tuberculous Myelitis and of Tuberculous Pachymeningitis. Charles L. Dana and J. Ramsay Hunt.
8 *The Outlook for a More Sanitary Street-car Service in New York. George A. Soper.
9 *The Early Diagnosis of General Paresis. William A. White.
10 *Pulmonary Tuberculosis as an Infectious Disease; Its Early Diagnosis. James J. Walsh.
11 *Pathologic Changes in Tissue Under the Influence of the X-ray. William S [illegible]
12 Historical Sketch o[illegible] Cures for Consumption, with a [illegible] Treatment. (To be concluded.) J. [illegible]
13 *Normal Labor Cons[illegible] Standpoint. A. M. Pond.
14 Rubber Cushions for General Surgical, Gynecologic and Obstetric Use. Howard A. Kelly.

7. Tuberculosis of the Spinal Cord.—Tuberculous myelitis is not yet recognized as a special separate pathologic process by the neuropathologist, at least it is not described in recent works nor referred to by writers on the general pathology. Dana and Hunt report cases, however, which point strongly to such a condition. The first case was one that seems to have been a direct infection or infiltration of the cord alone. The article is illustrated.

8. Street-Car Sanitation.—Soper gives the findings of the committee on engineering and sanitation appointed by the Merchants' Association of New York, showing the sanitary deficiencies of street and elevated cars, such as sand pile spittoons, lack of cuspidors, need of better car sanitation, more frequent cleansing of the cars, better floor coverings, the unsanitary condition of the closets in the stations and the need of ventilation both on the cars and in the stations, and the better regulation of temperature. In the surface railroads there should also be better ventilation and cleansing methods. The criticisms are much the same in both cases.

9. Paresis.—White points out the underlying dementia in the psychic symptoms in incipient paresis and the various disorders from which it should be clinically diagnosticated. The principal diseases which may be mistaken for it in the early stages are tabes, acquired neurasthenia, some of the pure psychoses, alcoholism, brain tumor, cerebral syphilis and disseminated sclerosis. The differentiation from tabes is not entirely easy. The physical signs may be the same. The preservation of knee-jerks and the associated evidence of dementia, however, are characteristic when they exist. The general mental attitude of the patient in acquired neurasthenia is significant. In neurasthenia there is no dementia, disorders of speech or writing or history of seizures. The tendon reflexes are equal or abolished, the pupils equal and reaction normal, while in paresis they are more apt to be dilated, frequently unequal and very much contracted. Alcoholism may closely simulate paresis, though the disappearance of the symptoms with discontinuance of the cause is remarkable. In brain tumor the focal symptoms should be looked for, and in disseminated sclerosis the differentiation should be by tremor, nystagmus and scanning speech, though some of these cases do ultimately develop typical signs of paresis. He points out a series of differentiating signs between cerebral and cerebrospinal syphilis and paresis which he thinks may be found, and the fact that the antisyphilitic remedies produce immediate results in many cases.

10. See abstract in The Journal, xli, p. 1224.

11. Tissue Changes Under the X-Ray.—Newcomet has studied the effects of the x-ray on the tissues microscopically, though he has not been able to study a case of simple burn. In all instances there had been pre-existing disease. He reports his cases and findings and concludes that no single form of degeneration is characteristic of the x-ray. The form of degeneration observed depends entirely on the tissue exposed. The method of x-ray application, and the effect of the x-ray depends on the cell formation of the exposed parts. But why certain normal cells, such as those in the hair follicles, should be more susceptible than in other tissues is still a question.

13. Normal Labor.—Pond recapitulates the points of his article under the following heads:

1. Success in obstetrics depends wholly on ability to secure and retain surgical cleanliness.
2. The same infective ag[illegible] gical practice are the causative agents in [illegible] lications, and are only successfully comb[illegible] of stringent aseptic and antiseptic technic.
3. Refrain from making numerous vaginal examinations, and when done, execute great aseptic care.
4. Do not wait until you are called to the case to make the preparations for confinement.
5. The practice of carrying a confinement pad is dangerous. An improvised pad is easily made with a quilt rolled and pinned in horseshoe shape, with a piece of white table oilcloth laid over it. This is aseptic and inexpensive.
6. Sunshine in itself is a valuable germicide; do not exclude it.
7. Unless the vaginal discharge is known to contain pyogenic bacteria the douche is contraindicated.
8. Exert the same surgical technic in dressing the umbilicus that would be demanded in any other fresh wound.
9. Be clean and be sure that you are clean. Take no chances. By so doing you will reap a liberal temporal reward, besides having the serene satisfaction of knowing that you are serving humanity faithfully and well.

New York Medical Journal.

April 9.

15 *The Wiring of Bone for Recent and Ununited Fracture with Report of Cases. Stewart L. McCurdy.
16 *Skiagraphic Errors; Their Causes, Dangers and Prevention. (Continued.) Lewis Gregory Cole.
17 *Guides to the Prognosis in Epilepsy, with Remarks on the Curability of the Disease: Including Reports of 34 Cases. (T[illegible]) W[illegible] P. Spratling.
18 *The [illegible]choma. Ellice M. Alger.
19 The [illegible] of Biliary Secretion. Hubert Ri[illegible]

20 Right Pulsating Exophthalmos: Ligation of Both the Right Common Carotid Artery and the Left Internal Carotid Artery; Accidental Traumatism; Cure. Charles A. Oliver.
21 On Laboratory Diagnosis. (Continued.) M. P. Overholser.

15. Wiring of the Bone in Fractures.—McCurdy illustrates his experience in wiring the bone, and favors the use of iron wire, iron being a normal constituent of the system, while silver is foreign and acts as such in the tissues, abstracting sulphur and producing more or less disturbance. He recommends, first, wiring of the bone while the ends remain down in their normal position, avoiding any removal from such position if possible as destroying the normal relations of things. It also preserves the nutrition, prevents necrosis and guarantees union. He also advises anchoring of the bony fragments to an external bridgework to hold them in position during repair. He illustrates his instrument for cutting off the ends of the bones when required.

16. Skiagraphic Errors.—The usefulness of the x-ray in fractures and bony deformities is twofold. First, in cases of injury of doubtful diagnosis, especially when near the joint, to determine whether or not there is fracture, and if so, what it is. In many cases only the skiagraph will reveal the condition, especially if small fragments are chipped off. If we are sure of fracture it is far less necessary to skiagraph than it would be to have a skiagram made of a part that has been continuously diagnosed as a contusion or strain. Many times these contusions or strains prove to be fractures of small fragments of the articular surface of the bone. It may be necessary to move the tube, plate and limb in several different positions before we can detect the fracture, but a skiagram so taken must not be interpreted as representing the relative position of the fragments. It is used simply to show the fracture, and when it has done that its usefulness is over. A broader and more important field of the skiagram is to show whether there is or is not any deformity. It does not require to be taken at the time of injury, and it may be done just as well years later. It is less useful when taken early, especially if the bones are still at all movable. To show the deformity best we must resort to what we might call comparative skiagraphy. The physician or even the surgeon can not properly be asked to compare a skiagram of an injured limb with his recollection of the bone as he has studied it in his student days, and say whether there is any deformity or not. It is also untrustworthy to compare an individual skiagram with a description or composite picture, or the part of one person with the corresponding part of another. There is only one thing to compare it with, that is, the corresponding normal part of the subject. If the plate is horizontal and the part to be skiagraphed is flat on the plate in such a position that the bone will be as near the plate as possible, and if the tube is vertically over the point of fracture or deformity, we can get the best possible picture of the part. But this is not enough. We must have a skiagram of the corresponding normal part with the tube, plate, part to be skiagraphed and the relation of the part to the body as a whole in exactly the same relative position as the skiagram of the injured part. If this is done with absolute accuracy it should show any deformity that may exist. We know then that it is really deformed and not a skiagraphic error.

17. Epilepsy.—Spratling commences his paper with the following propositions:

1. Epilepsy is curable in from 5 per cent. to 10 per cent. of all cases.
2. It requires, as a rule, a long continued course of treatment—never less than two to three years—carefully mapped out and executed to the letter, not only along one, but along many lines, to effect a cure.
3. The failure to secure better results, generally, in the treatment of this disease must frequently be laid to the failure to treat the individual and his disease as a unit, and to treat them both along the very broad, comprehensive and unyielding lines they both require.
4. The drug treatment of epilepsy alone, while invaluable in many cases and of some use in every case, often fails completely to meet the most important requirements.
5. Guides to the prognosis in epilepsy are always uncertain and unsatisfactory until treatment has been in operation from six to nine months, and in some cases a year or longer.

The remaining portion of this installment of his paper is mainly given to the report of cases that have been cured at the Craig colony up to this time.

18. Trachoma.—Alger thinks that much of the so-called trachoma observed in the school children of New York is really follicular conjunctivitis according to Fuchs' classical description. The treatment, therefore, for trachoma in every case is not logical. It simply removes the diseased lymphatics, but nothing short of complete removal of the conjunctiva could remove all the lymphatics, and if contagious at all, it is just as dangerous after expression as before. The school children have none of the symptoms of acute trachoma except the soft granulations.

Medical Record, New York.

April 9.

22 Joseph O'Dwyer, M.D., His Methods of Work on Intubation; the Measure of His Success: the Interest of Both to Young Graduates. W. P. Northrup.
23 *What Shall We Do with the Nervous Woman? William C. Sebring.
24 *The Rectal Segment of the Ureter. Byron Robinson.
25 *Technic of the Removal of One-half of the Thyroid Gland. John G. Sheldon.
26 Two Cases of Splenomedullary Leukemia, Treatment and Recovery. Bertram L. Bryant and Harold H. Crane.

23. Nervous Women.—Sebring reports 5 cases from actual practice which he thinks illustrates the classes of nervous cases most frequently seen by the physician, and which give him the greatest trouble. The first was one of aggravated hysteria, which after various experiments he subdued by emetics. The second was more of a neurasthenic type with anemia and was treated by Flint's tablets and analgesics for the relief of headache, etc. The third case was an overworked woman with nervous and gastric disorders and muscle spasms, which latter were controlled by splints. He thinks this the most effectual method of treating such cases. The fourth case was diagnosed by the attending physician as one of typhoid fever, and was the result of a low febrile condition, restlessness, insomnia, etc., with abnormal temperature due to the syndrome typical of neurasthenia from long continued strain and overwork. There was some psychic disturbance in this case also. He found the fluid extract of avena sativa the most effectual remedy in this case.

24. Rectal Segment of the Ureter.—Robinson describes the anatomy of the ureter in its relation to the rectum and adjoining parts. The paper is fully illustrated.

25. Thyroidectomy.—The operation for the removal of half of the thyroid gland here recommended by Sheldon is that originally devised by A. Pearce Gould. It is described as follows:

> The gland is exposed by dividing the skin, fascia and muscles. The next step is to pass a Kocher's director or one blade of an artery forceps between the trachea and the isthmus. Usually, I remove the isthmus, and in these cases clamp the gland with a stomach clamp between the isthmus and the lobe that is to be left. When one clamp has been applied, a second one is placed close to the first and an incision made between the two clamps. I now turn the isthmus and the lobe to be removed outward and separate the under surface of the gland from the underlying structures with the finger covered with a piece of gauze. This can be easily and quickly done without injury to the gland or to the structures on which it lies. The thyroid arteries are soon exposed as they enter the under surface of the gland. If a transverse incision has been made the inferior thyroid is first exposed and clamped; if an angular incision has been used, it is easier to expose and clamp the superior thyroid before dealing with the inferior vessel. After the arteries are clamped close to the gland and cut, the removal of the remainder of the lobe is easily accomplished by blunt dissection close to the gland. The veins of the thyroid do not bleed after the arteries have been clamped; and the internal jugular vein, in the great majority of cases, gives no trouble.

The operation, he claims, is better for the avoidance of hemorrhage and of injury of the recurrent laryngeal nerve, and he believes that the thyroid can be removed with less injury to the gland by the method here described than by the ordinary technic. He advises tubular drainage for ten or twelve hours in all operations on the thyroid as a considerable amount of primary wound secretion is exuded and the contents of the gland may have been expressed into the wound during the operation.

Boston Medical and Surgical Journal.

March 24.

27 Ultimate Results of Some Gynecological Operations at the Massachusetts General Hospital. Richard G. Wadsworth.
28 *Eyestrain Considered as a Factor in the Production of Lateral Curvature of the Spine. (Preliminary Communication.) Henry W. Kilburn.
29 *Supernumerary Breasts and Nipples, with Report and Photograph of a Case. Ernest B. Young.
30 *Ring Bodies in Anemic Blood, Additional Forms. Richard C. Cabot.

31 Typhoid Fever in Infancy, with Report of Case Complicated with Meningitis; Recovery. Charles P. Sylvester.

March 31.

32 *The Partial Passing of Neurasthenia. Charles L. Dana.
33 *The Cystoscope—Its Diagnostic Value. A. M. Wose.
34 *Ligation of the Lachrymal Canal to Prevent Infection Following Cataract Extraction. Alex. Quackenboss.

28. **Eyestrain and Spinal Curvature.**—Three cases are reported by Kilburn which he thinks are typical. In these cases eyestrain, by inducing a faulty position, acted as an indirect factor in the production of spinal curvature. The patients were all growing girls with poor muscular development, and the rapid increase of body weight contributed to the result.

29. **Supernumerary Breasts and Nipples.**—Young reports and illustrates a case of supernumerary nipples. He thinks heredity has a certain influence in the occurrence of these deformities, and that in respect to its cause the theory of reversion to some previous type has the greatest number of adherents among writers and offers the most satisfactory explanation for the appearance of these rather interesting deformities. As regards accessory nipples, the theory of the separation of a portion of tissue is apparently the most satisfactory. It may be that some other explanation may be needed for the anomalous position of the nipple occurring on the outer side of the thigh, on the back, etc.

30. **Ring Bodies in Anemic Blood.**—In this brief communication Cabot reports that he has examined 14 cases of pernicious anemia in their active stages, 9, or 64 per cent., of which showed the presence of rings more or less similar to those previously described by him in his former article in *The Journal of Medical Research* of February, 1903. He has also found them in anemias secondary to lead poisoning as also in lymphatic leukemia. Negative results were obtained in 4 cases of pernicious anemia in the stage of remission, in 10 cases of leukemia, in 9 of severe secondary anemia and in 22 cases of various skin diseases. He gives a number of illustrations of the ring bodies, remarking that further study has only increased his ignorance in regard to their nature and origin.

32. **Neurasthenia.**—Dana considers that 50 per cent. of the cases of neurasthenia may be classed under other heads, as dementia precox, slight attacks of melancholia or manic depressive insanity, the more early development of phrenasthenia, under which he includes such states as dipsomania, hysteria, psychic states, obsessions, etc., and the exhaustion psychoses. In syphilitic cases neurasthenia is liable to be a precursor of paresis. In older persons the symptoms usually indicate a mild form of the melancholia of involution. Neurasthenia occurring after severe illnesses, toxemias, etc., sometimes shows signs of confusional psychoses, and the so-called congenital neurasthenia or chronic hypochondria is generally a dementia precox, paranoia or phrenasthenia. His contention is, first, that many cases of dementia precox are in the early stages considered neurasthenics. Also that there are abortive types of dementia precox which pass through life or many years of it, with the dementia arrested, and are classed simply as neurasthenic. The subjects break down early and are unable to continue work and have but little initiative. Simple neurasthenia occurring under twenty years of age is rarely neurasthenia. It is a dementia precox or a recurrent melancholia or the exhaustion of phrenasthenia, and it is rarely paranoia.

33. **The Cystoscope.**—The value of the cystoscope in kidney and bladder disorders is pointed out by Wose, as well as the use of the segregator instruments and catheterization of the ureters.

34. **Ligation of the Lacrymal Canal in Cataract Operations.**—Quackenboss has operated on 2 cataract cases, following the suggestion of Buller of Montreal to temporarily ligate the canaliculi to prevent wound infection in operations on the eye. He has also seen two other cases thus operated on. The canal was tied, and in each he succeeded in preventing infection. He sees no use in leaving stitches after the corneal wound has healed firmly. They caused no irritation in the case reported, and were removed at the end of two weeks. Before taking them out, pressure on the sac failed to discharge anything into the eye, but after removal a probe was easily passed and pressure on the sac caused a small amount of purulent matter to come through the puncta.

St. Louis Medical Review.

April 2.

35 *Modern Views on the Determination of Sex. Fred J. Taussig.
36 My Autobiography and Reminiscences. (Continued.) S. Pollak.
37 *The Explosive Character, When Combined, of Two Frequently Used Substances. H. C. Fairbrother.

April 9.

38 Congenital Dislocation of the Hip. H. W. Jones.
39 My Autobiography and Reminiscences. (Continued.) S. Pollak.

35. **Determination of Sex.**—The subject of sex determination is very thoroughly treated by Taussig, who concludes that the sex of the human embryo is determined far earlier than we are able at present to differentiate microscopically. The study of single-ovum twins shows that such a differentiation must have occurred previous to the formation of a gastrula, in the first days of gestation. Whether the sex is determined earlier than this in man is unsettled, but in some animals it seems clear that the sex must have been determined before impregnation. In certain plants and animals the male and female generative cell can be differentiated by its size while still attached to the mother body; here, as in parthenogenesis, it is unquestionably true that the sex is determined in the unimpregnated ovum. All observations concerning the influence on sex determination of the respective vitality of the sexual elements, comparative age of parents, etc., are based on insufficient data. The influence of nutrition on the formation of sex has been clearly demonstrated for a large number of plants and animals, and the influence of temperature can logically be explained as also a nutritive influence. The effect of any of these factors in the determination of the human sex, however, is yet unproved.

37. **An Explosive Compound.**—Fairbrother calls attention to the fact that a combination of nitric and carbolic acid is dangerously explosive. There are hardly any two agents more frequently used in dressing wounds in the surgeon's office than these. He reports an accident that occurred to him. About half a dram of each of these substances was mixed and an immediate explosion resulted.

Cincinnati Lancet-Clinic.

April 9.

40 Purulent Conjunctivitis. C. W. Tangeman.
41 Medical Library Association of Cincinnati. Henry W. Bettmann.

Annals of Surgery, Philadelphia.

March.

42 *Radical Op[illegible] the Cure of Cancer of the Pyloric End [illegible] William J. Mayo.
43 *[illegible] Surgery of Perforating Gastric Ulcer. [illegible]
44 *[illegible]ach. John G. Sheldon.
45 *[illegible]ting Wounds of the Abdomen. Malcolm [illegible]
46 *[illegible] from Chronic Nephritis. Leonard Freeman.
47 *Primary Carcinoma of the Bulbous Urethra. Statistical Digest, with Reports of Some Unrecorded Cases. J. Basil Hall.
48 *Complications and Sequels of Prostatectomy. James E. Moore.
49 Case of Enormous Prostatic Calculus. G. Frank Lydston.
50 *Fibromata of the Tunica Vaginalis. Edward A. Balloch.
51 *Costal and Thoracic Resection for Pyothorax, with Special Reference to [illegible]d. Carl Beck.
52 Treatment of [illegible] Francis W. Murray.
53 *Lip-tie. Frede[illegible] [illegible]

42. **Cancer of the Pylorus.**—The operation here described by Mayo is summed up by him in the following steps:

1. Open the abdomen. 2. Double ligate and divide the gastric artery; ligate and divide the necessary amount of gastrohepatic omentum close to the liver, leaving most of its structure attached to the stomach. Double ligate and divide the superior pyloric artery and free the upper inch or more of the duodenum. 3. With the fingers as a guide underneath the pylorus, in the lesser cavity of the peritoneum, ligate the right gastro-epiploic or gastro-duodenal artery, and progressively tie and cut away the gastro-colic omentum distal to the glands and vessels up to the appropriate point on the greater curvature, and here ligate the left gastro-epiploic vessels. 4. Double clamp the duodenum, divide between with the cautery, leaving one-fourth inch projection. With a running suture of catgut through the seared stump the end of the duodenum is closed as the clamp is removed. A purse-string suture about the duodenum enables the stump to be inverted. The proximal end of the stomach

is double clamped along the Mikulicz-Hartmann line and divided with the cautery, leaving one-fourth inch projection. Suture through the seared stump with a catgut button-hole suture. This is again turned in after removal of the clamp by a continuous silk or Cushing suture. 5. Independent gastrojejunostomy. 6. Closure of the wound.

He and his brother, Dr. C. H. Mayo, have operated on 41 cases, 37 for cancer and 4 for inveterate ulcer. Of these operations 13 have been made essentially by the plan outlined, with one death. There were 6 deaths in the remaining 28 cases performed by various methods. He does not claim originality for the method; it is a composite operation. He thinks it should be the operation of choice in the average case of fairly early disease of the pyloric region.

43. **Gastric Ulcer.**—MacLaren believes that many cases of perforating ulcer of the stomach can be diagnosed in time, and that the duty of the medical man is to operate at the earliest possible moment, followed by suture of the opening with silk or linen, caulking the opening with gauze. He would sponge out a slightly soiled peritoneum, without drainage; but if there is much fluid in the peritoneal cavity a large drain should be put into the pelvis through a stab-wound over the symphysis and the patient put to bed in the Fowler position. He reports three cases in detail, all encountered in three months.

44. **Cirrhosis of the Stomach.**—Sheldon reports a case and comments on the same. He also reviews the others that have been recorded in the literature, and believes that, in spite of the claims to the contrary by most German writers, benign cirrhosis of the stomach, though a rare condition, does exist. It is difficult to diagnose, but may be suspected in patients presenting symptoms of benign stenosis of the pylorus with contracted stomach. It would be impossible in any case to exclude malignancy. The conditions that would point to it are long-standing disease, absence of hemoptysis, contraction of the stomach, absence of tumor on palpation, absence of glandular or hepatic involvement and general improvement and relief of the stomach symptoms for a period of time when rectal feeding is resorted to. It is not likely to prove fatal until the pylorus has been so nearly closed as to prevent the passage of food. The treatment is necessarily surgical.

45. **Gunshot Wounds of the Abdomen.**—The points emphasized by Harris are stated as follows:

1. In penetrating wounds of the abdomen there are absolutely no known symptoms which indicate injury to any of the viscera, except those in connection with the urinary tract, stomach and occasionally the lower bowel. 2. Except those relating to general shock, all symptoms following such wounds indicate either internal hemorrhage or peritonitis. 3. To wait for symptoms of perforation of the intestine means to wait until peritonitis has developed, therefore, 4. Every bullet or stab wound which penetrates the abdominal cavity should be operated on at the earliest possible moment in order to anticipate the advent of peritonitis. 5. No time should be wasted in attempting to demonstrate the presence or absence of intestinal perforation by such means as the rectal insufflation or gases or vapors, or the analysis of recollected intraperitoneally injected air or liquids. 6. It is essential to systematically examine the entire gastrointestinal canal in all cases, regardless of the point of entrance of the wounding body. 7. Whenever the alimentary canal has been perforated suitable drains (the author prefers the so-called cigarette drains) should be placed either through the operative incisions or counter-incisions, as may appear best suited to the individual case.

46. **Unilateral Hematuria.**—Freeman reports a case and remarks that a prominent cause of renal hematuria, which is often unilateral, is chronic interstitial nephritis, often involving the glomerules. This, with other obscure causes, must be excluded before a diagnosis of "essential hematuria" is made. Decapsulation of the kidney is indicated in these cases as affording a prospect of cure of both the hematuria and the nephritis. Nephrectomy is dangerous on account of the probability of involvement of the other kidney.

47. **Epithelioma of the Urethra.**—Hall reports a case personally observed and 3 others by Drs. Wood and Montgomery communicated to him. He also finds in the literature 21 undoubted cases of epithelioma of the bulbous urethra, which he tabulates. The rarity of the occurrence of this condition must be a mystery, he says. The urethra ought to be a common locality for cancer if Cohnheim's theory of chronic irritation be accepted. If, on the other hand, a specific micro-organism be invoked as the essential cause, it is difficult to understand its immunity, especially when we remember how easily gonococcus infection is established.

48. **Prostatectomy.**—Moore's article is a critical one on the subject of prostatectomy, pointing out its inconveniences and dangers. He thinks it is too grave an operation to be resorted to as a routine treatment, and that it is applicable only in properly selected cases. The dangers of uremia in case of kidney disease, of sepsis, which is an ever present danger, the various complications, such as injury to important blood vessels, peritoneum and nerves, hemorrhage, which, however, is not a very serious danger, the possibility of permanent damage to the urethra and of extensive injury to the bladder in case of suprapubic operation, and in the peritoneal operation, of injury to the rectum, must all be taken into consideration. Moreover, under the present technic, we do not preserve the seminal ducts, and this is certainly a grave complication. Other unfortunate sequelæ are epididymitis, incontinence or dribbling and the possibility of perineal fistula. He does not wish to be classed as a pessimist as regards this operation, but as one who recognizes difficulties with the hope of overcoming them.

50.—See abstract in THE JOURNAL of January 16, p. 191.

51. **Pyothorax.**—Beck reviews the operations for costal and thoracic resection in pyothorax, advocating early preliminary rib resection and condemning aspiration as ineffective on account of the probability of solid masses in the cavity. Baelz' treatment of aspiration with irrigation has also its drawbacks. The drain may be obstructed, the drainage tube become loose and the exclusion of air impossible. Such patients require much more careful watching than those under ordinary treatment. Simple incision through the intercostal space is undoubtedly effective in the majority of cases, but he does not consider it a good substitute for resection, the alleged difficulties of which have been overrated. He insists on the importance of individualizing in operations, and special caution at the beginning of operation. The author describes the technic in detail, illustrating the article. Two cases are reported.

52. **Pulsating Exophthalmos.**—In the case reported a man 29 years of age was struck on the left parietal region with a bottle. There was no unconsciousness or laceration of the scalp, but the second day afterward the left eye began to protrude and the eyelids to swell. The conjunctival and subconjunctival veins became enormously distended. There was headache for the first week followed by noise in the head. The left eye protruded forward at least one-half of its anteroposterior diameter; the right eye also protruded slightly forward. The operation performed was ligation of the left common carotid by two ligatures, severing the artery between the ligatures. Relief was apparently perfect for the first year; then came a relapse. Murray thinks the mistake made was in ligating the common carotid, and that the chances of recurrence would have been lessened if the internal carotid had been tied. If the patient should return for operation he would follow Woodward's example and ligate and resect the branches of the superior ophthalmic vein at the inner angle of the orbit, and, if necessary, resect a portion of the main vein. In case of failure then ligation of the opposite carotid would be indicated. The case is illustrated.

53. **Lip-Tie.**—While cases of tongue-tie are common, Griffith thinks the condition here described has not been noticed in the literature. In an Italian infant since birth there has been an attachment of the inner surface of the middle line of the entire upper lip to the gum by a fold of tissue continuous with the mucous lining of the mouth, about an eighth of an inch in thickness. When the mouth is opened the middle of the upper lip is rolled directly inward, giving rise to a peculiar expression not apparent when in repose. The treatment consisted in cutting through the protrusion half way up its extent and tearing through the remaining portion. There was a temporary hemorrhage from the operation. The result is not stated, but was probably good.

Proceedings of the Philadelphia County Medical Society, Philadelphia.

February 29.

54 *Short Supplement to Dr. Barton Cooke Hirst's Paper on the Treatment of Puerperal Eclampsia. James Tyson.

55 *Plastic Surgery in the University Maternity for the Year 1903. Barton Cooke Hirst.
56 *Note on Cerebrospinal Symptoms in Infectious Diseases Apropos of a Case of Typhoid Fever. Alfred Gordon.
57 *Condition of the Blood in Patients Suffering from Pulmonary Tuberculosis. John M. Swan.
58 Two Cases of Death from Hemorrhage During Pregnancy. Mordecai Price.

54.—This article has appeared elsewhere. See abstract in The Journal of April 16, ¶80, p. 1050.

55.—This article appeared in The Journal, March 5, p. 646.

56. **Cerebrospinal Symptoms in Infectious Diseases.**—Gordon reports a case of typhoid in which there was a total motor aphasia, agraphia, word blindness, right hemiplegia, including the face, though not pronounced, and slight hyperesthesia of all forms of sensation on the same side, rigidity of both lower extremities with ankle clonus, greatly exaggerated patellar reflexes, and the Babinski sign on both sides. The patient could not stand unsupported or walk, and there was incontinence of both urine and feces. With this there were no hysterical stigmata, and the previous history made Gordon reject functional nervous disease as the cause. At the time the examination was made the patient had entered into convalescence and made an uninterrupted recovery and left the hospital in perfect health. He thinks the case is instructive, for the following reasons:

> 1. An apparently mild case of typhoid fever without any complication in other viscera may affect the whole cerebrospinal system simultaneously. 2. The nervous symptoms may be pronounced and multiple in spite of the mildness of the original disease. 3. These multiple and marked organic symptoms may be out of proportion to the general condition of the patient, as, generally speaking, we know that the more the infectious disease is pronounced in its course, the more profound is the toxemia, and the more symptoms of complications can be expected 4. The prognosis is usually favorable in cases in which disproportion is present, as these apparently alarming symptoms are only transitory in character. The case is also unusual from this point of view, that if aphasia and hemiplegia in the course of typhoid fever were rarely observed, agraphia and word-blindness, to my knowledge, were not reported.

57.—This article appeared in The Journal, March 12, p. 696.

Archives of Pediatrics, New York.

March.

59 *Clinical Study of 62 Cases of Intestinal Infection by the Bacillus Dysenteriæ (Shiga) in Infants. L. E. LaFetra and John Howland.
60 *Concerning the Nature of Still's Type of Chronic Polyarthritis in Children. David L. Edsall.
61 Hemorrhagic Diseases in Children. Wm. L. Stowell.
62 Hernia of the Vermiform Appendix with Adhesion to Epididymis in an Infant. Henry L. K. Shaw and E. McD. Stanton.
63 Report of a Case of Perforation in Typhoid Fever in a Child of 6 Years. John H. Jopson.

59.—This article has appeared elsewhere. See The Journal of March 26, ¶26, p. 855.

60. **Chronic Polyarthritis in Children.**—Edsall reports a case of the type of chronic joint disease described by Still, characterized by marked enlargement of the lymph nodes, usually of the spleen, a tendency to irregularity and at times a marked fever, absence of bone deposits, and the fact of its occurrence in young children. From his study of the case he is inclined to believe that the child had a widespread tuberculosis of a low degree of virulence, which enabled him to kill off large numbers of tubercle bacilli, and, finally, to control the progress of the disease. The case presented the tuberculin reaction and microscopic examination of the lymph nodes, while at first it showed no tubercle bacilli, and inoculation experiments were negative, an emulsion from several of the lymph nodes showed a large number of acid-fast bacilli having the typical appearance of tubercle bacilli. Dr. Ravenel, who made the examination, has no doubt but that the bacilli seen were tubercle bacilli, especially in view of the violent tuberculin reaction. The case is one which was also mentioned in a former paper noticed in The Journal of January 23, p. 271.

American Journal of Obstetrics, New York.

March.

64 *Anesthesia in Abdominal Surgery. J. J. Gurney Williams.
65 *Duplex Placenta. Henry F. Lewis.
66 Report of a Case of the Invasion of a Fibromyoma of the Uterus by an Adenocarcinoma, Which by Metaplasia Had Assumed the Appearance of a Squamous Cell Sarcoma. Charles P. Noble.
67 Etiology and Pathology of Appendicular Inflammation. Louis Frank.
68 Three Nephrectomies, Presenting Features of Interest to the Gynecologist. Reuben Peterson.
69 Immediate Repair of Lacerations After Labor. Strickler Coles.
70 Consideration of Combined Ectopic and Intrauterine Pregnancy, with Report of Case. F. F. Simpson.
71 Ectopic Pregnancy. Henry D. Ingraham.
72 Intra-abdominal Torsion of the Omentum. Thomas B. Noble.
73 Acute Anterior Poliomyelitis. Geo. N. Acker.
74 Report of Three Cases of Esthiomene. Emil E. Guenther.
75 Abdominal Section During Pregnancy, with Report of Six Cases. X. O. Werder.
76 Choice of Methods for Closing the Abdominal (Parietal) Incision. Edwin Ricketts.

64. **Anesthesia in Abdominal Surgery.**—Williams insists on the importance of a skilled anesthetist, and thinks the selection of an anesthetic of less importance than the selection of the one to administer it. He has no fear of chloroform in abdominal surgery, and believes that in careful hands it is a safer substance than many believe. In the vast majority of cases, however, ether will be employed. It has the advantage that it is nearly always possible to procure a fresh supply, and so far as statistics go, is safer. The patient can be placed under anesthesia in a large number of cases quite as easily and quickly as under chloroform, keeping the patient in pretty much the stage desired, while with chloroform he has seen the patient go quickly from the sensation of pain to deep narcosis. When we are compelled to place the anesthesia in unskilled hands it is safer than chloroform. When organic heart disease is present, ether for the time stimulates the heart; he has seen the patient leave the table in a better cardiac condition than before the operation. He has administered ether to alcoholics, tuberculous cases, and cases of pathologic kidneys, and thinks it is as safe as any general anesthetic, if not safer. His plan is to administer the ether on a square of gauze of about twenty layers, allowing a few drops to fall on the center of the pad, letting the patient "see what it is like" by holding it several inches from the face. This is followed by a request to close the eyes and breathe as he wishes, but stating the benefits of slow, deep inspirations. Still holding the gauze so as not to touch the face, ten or twelve drops are added, carefully avoiding the eyes; in the majority of cases the amount can be increased every few seconds until thirty or forty drops are added each time, the pad being brought close to the nose and mouth, never covering the eyes, and allowed to stay there during the operation. When the patient has been fully etherized, the anesthesia may be given by dropping ½ or 1 dram over the nose tip every minute or so, or using the "drop method" as in chloroform anesthesia. One very important point is to turn the towel over after each addition in the former method, and every few minutes in using the drop method. Whenever possible he prefers to keep the gauze an inch from the face, allowing a certain admixture of air. This can often be done in acute septic and feeble cases. Unless absolutely necessary never request an anesthetic to be given to any one suffering from an "acute cold." During appendicitis and bowel-stitching operations, vomiting and retching are to be strictly avoided, and a few inspirations of air followed by several drops of fresh vapor will usually overcome this tendency. Heaving of the abdominal wall and efforts to swallow seen early in the administration indicate the attempt to vomit; in this case, push your anesthetic. When occurring late in the operation, the patient needs air; withdraw the vapor, gently push the jaw forward and turn the head to one side. It is proper, Williams says, to inform the operator of failing pulse or respiration. Always withdraw the anesthetic when tapping a large cyst or ascites, and when removing bulky fibroids, keep it withdrawn until the patient shows signs of returning consciousness. The anesthetist's endeavor should be to administer vapor so carefully that the transition from one state to the next is a slow agreeable process, void of all sensation of suffocation. Two points to bear in mind are that the average time is eight minutes and the amount four or five ounces.

65. **Duplex Placenta.**—Lewis describes the condition and insists on the importance of examining the edges of the afterbirth with sufficient care so that one can be assured that nothing has been left behind in the uterus. The membrane should be held up to the light to see whether there are any vessels running off from the margin of the placental disc. If so they

should be traced and the spot where they end scrutinized for evidences of the tearing away of an accessory lobe or a succenturiate portion. If it appears that a piece of any but the very smallest size has been retained in the uterine cavity the hand must go in search of it and remove it.

University of Pennsylvania Medical Bulletin, Philadelphia.

February.

77 *Early Diagnosis of Cirrhosis of the Liver, Considered from the Pathologic Standpoint. W. W. Ford.
78 *Early Manifestations of Cirrhosis of the Liver Previous to the Appearance of Physical Signs. Charles G. Stockton.
79 Clinical Chemistry of Disease of the Liver. David L. Edsall.
80 Certain Peculiarities of the Inductorium. Colin C. Stewart.
81 Spontaneous Agglutination of Blood Cells of Arthropods. Leo Loeb.

77. **Cirrhosis of the Liver.**—Ford has analyzed the cases of cirrhosis of the liver encountered in the first 500 autopsies in the Johns Hopkins Hospital. He finds that advanced cirrhosis occurred as a direct or accessory cause of death in 49 cases, or 1 in 10. The majority were cases of atrophic cirrhosis in which an excessive fibrous tissue production masked the initial changes. Twenty-nine cases were definitely associated with arteriosclerosis, either alone or in association with primary cardiac disease or secondary heart changes induced by primary sclerotic changes in the kidney. Next in frequency to these cases of arteriosclerosis come the cases of syphilitic cirrhosis of the liver. In 14 cases of syphilitic hepatic disease, interstitial hepatitis occurred in but 6. The other 14 cases of cirrhosis present the most diverse pathologic findings. A few seemed to be associated with chronic infectious processes elsewhere. In some, among other conditions, there was chronic suppuration of the genitourinary tract, cholelithiasis, peritonitis, etc. Only 2 of the whole series were hypertrophic. He next discusses the initial changes leading to interstitial hepatitis, and the evidence of existence of these changes in the 500 autopsies. He found parenchymatous degeneration of the liver cells in 26 cases without any increase in the fibrous tissue. Fatty degeneration was found in 158 cases and fatty infiltration in 18 cases, but apart from the cirrhotic cases there was no increase of interstitial tissue observed. In practically all the cases, with the very few exceptions noted, the cases of beginning cirrhosis of the liver were associated with renal disease, cardiac affections and arteriosclerosis. No case of advanced cirrhosis of the liver has been seen in Baltimore in connection with chronic malarial intoxication. He remarks on the experimental, apart from the clinical, data as to the production of cirrhosis, and says there seems to be little doubt but that alcohol has much to do with the production of the condition, but from the experimental standpoint there is no very reliable evidence that alcohol alone can cause fibrous proliferation. Alcohol of itself is not sufficient to start tissue proliferation. Experimental cirrhosis in spite of all the work that has been done, is only in exceptional cases sufficiently definite to bear searching pathologic criticism. The essential factor in the production of fibrous tissue increase can not be made operative. What that factor is can only be determined clinically. We may eliminate from consideration all syphilitic cases, cases of chronic infection and the rarer cases of anthracotic cirrhosis or of malarial cirrhosis, and the few cases of biliary cirrhosis dependent on disease of the bile passages, and still have left the vast majority of cases of atrophic cirrhosis and a considerable number of cases of beginning cirrhosis in all of which the hepatic disturbances are part and parcel of some more general disturbances of nutrition whose pathologic effects operate on kidney, heart and liver alike, but whose primary etiologic factors are as yet unknown.

78. **The Early Manifestations of Cirrhosis.**—Stockton concludes from a study of the subject that subjecting the question to careful scrutiny and analysis there seems to be no positive data from a clinical standpoint on which a developing hepatic cirrhosis may be predicted.

New York State Journal of Medicine, New York.

April.

82 *Remarks on the Gunshot Wounds of the Civil War. Robert F. Weir.
83 *Some Features in the Modern Treatment of Gunshot Wounds. Louis A. LaGarde.
84 *Knowledge of the Eye That Is of Use to the General Practitioner. S. Busby Allen.
85 *Minus Cylinders—Those Who Prescribe Them and Those Who Wear Them. F. W. Higgins.
86 Arteriosclerosis and Its Bearing on Certain Lesions of the Retina and Optic Nerve. Charles S. Bull.
87 *Dysmenorrhea. Charles L. Bonifield.
88 Address—Need of More Unity Among Members of the Profession. S. J. Sornberger.

82. **Gunshot Wounds.**—Weir's paper describes the type of missile wounds received during the Civil War, noticing a number of interesting anomalous cases and calling particular attention to the contrast between the methods then in vogue and those at present practiced. He also refers to the medical or surgical malingerer, a very striking type of fraud on the government, and mentions his methods of exposing the humbug.

83. **Modern Treatment of Gunshot Wounds.**—La Garde describes his experience in the Spanish-American and South African wars as well as accidental gunshot wounds such as the toy pistol injuries and their sequelæ of tetanus. The character of the lesion in gunshot wounds favors all infections, though tetanus is the most frequent and fatal one. The great danger in military practice is the environment; the removal of lodged missiles has to be forbidden at the front, while in civil practice it is imperatively indicated. The remote consequences of gunshot wounds, thanks to antisepsis and the *x*-ray, have been reduced to a minimum. He considers the fatality of gunshot wounds of the head as great as it was by old arms; glancing wounds are less frequent. The modern projectile is less septic, and chest wounds are considered among the hopeful class at present. In conclusion he calls particular attention to the experimental work in this line; it is only by the results of such that the modern treatment of gunshot wounds can be intelligently formulated.

84. See abstract in THE JOURNAL, xli, p. 1224.

85. *Minus Cylinders.*—Higgins' article is written with the special intent of calling attention to the evils from ignorant prescribing of minus cylinders. He insists that to prescribe glasses properly requires a medical training.

87. See abstract in THE JOURNAL, xli, p. 1159.

California State Journal of Medicine, San Francisco.

April.

89 Recent Epidemic of Smallpox in California. Daniel Crosby.
90 *The Rat and His Parasites: His Rôle in the Spread of Disease, with Special Reference to Bubonic Plague. B. J. Lloyd.
91 *What Causes Appendicitis? D. A. Stapler.
92 The Legal Definition of the Practice of Medicine. William C. Tait.
93 A Few Remarks on the Treatment of Primary Glaucoma. C. S. G. Nagel.
94 Neuralgia and Some of Its Clinical Features. Paul Sanford.
95 Asepsis: Especially in the Practice of Obstetrics. J. W. Graham.

90. **The Rat and Its Parasites.**—Lloyd enumerates the numerous parasites to which the rat is subject, including species of tremotada, cestoda, and nematod worms, many of them in common with man; various protozoa, particularly *Trypanosoma Lewisi;* among the insects, the flea, which has its part in the transmission of disease; among the vegetables, the favus organism. He mentions further the danger from rats in regard to plague, showing from the history how plague may linger in the sporadic form for years in a city, and then under favorable circumstances explode, so to speak, into a violent pestilence. The non-contagious nature of the disease in the stricter sense of the word is emphasized.

91. **Appendicitis.**—Stapler insists that appendicitis is caused through loss of tissue with subsequent infection. This loss of tissue may be caused by capillary hemorrhages due to infectious diseases or overexertion or by foreign bodies. No appendicitis without infection, he says, and no infection without loss of tissue.

Bulletin of the Johns Hopkins Hospital, Baltimore.

February.

96 *Historic Outline of Cardiac Pathology and Clinical Aspects of Chronic Myocarditis. C. N. B. Camac.
97 *Efficiency of the Periureteral Arterial Plexus, and the Importance of Its Preservation in the More Radical Operations for Carcinoma Cervicis Uteri. John A. Sampson.
98 Two Cases of Leukokeratosis Buccalis; Comparison with the Histologic Changes in a Case of *Tylosis Palmæ* et Plantæ. Sylvan Rosenheim.

99 *Effects of X rays on Lower Animal Life and the Tube Best Suited to Their Destruction Kennon Dunham
100 *An Anopheles Mosquito Which Does Not Transmit Malaria Leonard K Hirshberg

96 **Myocarditis**—In the conclusion of his article Camac emphasizes the following points The normal anatomy and physiology of the heart must be closely studied by the clinician A knowledge of the pathologic anatomy and physiology is also essential His study of myocardial disease must be greatly extended by bedside observation, and to do this there must be an honest limitation of the clinician's conclusions to the evidence at hand The diagnosis must be made in the early stages Even with the best methods, the diagnosis of chronic myocardial disease at least is difficult, and its nature obscure

97 **Periureteral Arterial Plexus**—Sampson insists on and demonstrates the importance of the arterial plexus surrounding the ureter, imbedded in its perimuscular fibrous coats The complete dissection of this plexus for a very short distance, or its partial resection, if combined with ligation of the vessels supplying the vesical end of the plexus, is apt to cause necrosis He insists on guarding this plexus in operations, though experience shows that the ureter can stand a good deal of interference The ureter has been freed for its entire length without necrosis Both the internal iliac, ovarian and vessels of the round ligament have been tied without producing such results On the other hand, when the ureter is dissected free from some adherent mass, even for a short distance, there is danger of necrosis, and this danger is increased after operations on account of cancer of the cervix, where the vessels supplying this portion of the ureter are ligated Other etiologic factors of necrosis are infection exudates, the use of the cautery, the pressure of foreign bodies, such as gauze, stricture, and a lowered general resistance In performing hysterectomy in case of carcinoma of the cervix uteri there is danger of ureteral necrosis in the radical operation Resection of the lower .75 cm of the ureter and implantation of the renal end into the bladder offers the best chance of cure, with less danger of ureteral necrosis in such cases In any operation the periureteral arterial plexus and the ureteral sheath should be preserved The article is illustrated by figures showing the ureteral plexus and its blood supply

99 **Effects of X-Rays on Lower Animal Life**—From his extensive experiments, the technic and details of which are described, Dunham concludes that the best rays to destroy epitheliomatous and sarcomatous cells are those from the lower tube excited by a heavy current with much resistance The closer to the object treated the more destructive the rays Very high tubes have little effect By the use of controls he eliminated as the destructive force any other agency than the *x* ray, and also established the analogy between the susceptible lower organisms and new malignant cells

100 **The Anopheles Mosquito.**—From observations made on the incidence of malaria and the distribution of *Anopheles maculipennis* in the neighborhood of Baltimore, Hirshberg concludes that this species is not usually a conveyor of the malarial organism He thinks the absence of any reference in the literature to the species as having been found bearing parasites is also corroborative Farther than this he does not care to go

Indiana Medical Journal, Indianapolis

April

101 [illegible] of Vital Statistics A S Tilford
102 [illegible] ienna H H Wheeler
103 [illegible] of the Ocular Muscles J L Masters
104 [illegible] ancer Research Society Treatment of Malignancy by Finsen Light and X ray Bernard Erdman

Clinical Review, Chicago

April

105 Prenatal Syphilis Wm Rittenhouse
106 Hysteria L Harrison Mettler
107 Importance of Careful Refraction F W Kettlestrings
108 Diagnosis of Febrile Diseases of Childhood N Filatov

Toledo Medical and Surgical Reporter.

April

109 Phlegmasia Alba Dolens Frank P Wilson
110 Report of a Case Stab Wound of Thorax and Abdomen Christian Storz
111 Medical Work in China Mary Ketring

Mobile Medical and Surgical Journal.

March

112 Flies and Mosquitoes as Carriers or Propagators of Diseases W M Wilkerson
113 Renal Surgery G Edward Gavin

Buffalo Medical Journal.

April

114 Diagnosis of Cholelithiasis and Cholecystitis, with Remarks on Medical Treatment Charles G Stockton
115 Uterine Myomata A L Benham
116 Reminiscences of Buffalo General Hospital Devillo W Harrington
117 Justifiableness of Exploratory Operations Eugene A Smith
118 Cholelithiasis W D Dignen

Cleveland Medical Journal

April

119 Deaf Mutes Report on Examination of Pupils of the Cleveland School for the Deaf Albert R Baker
120 Is a Marked Diminution in the Amount of Urea Excreted During Pregnancy an Indication of Threatening Puerperal Eclampsia? F S Clark
121 Cause of Infection of the Water Supply of Butler, Pa Martin Friedrich
122 Specimen of Pseudarthrosis or False Joint of the Ulna Myron Metzenbaum
123 Report of a Case of Belladonna Poisoning J J Thomas

Fort Wayne Medical Journal Magazine.

March

124 Colles' Fracture Charles C Miller
125 Diseases in the Sigmoid Flexure L R Fast

Canadian Journal of Medicine and Surgery, Toronto.

April

126 The Baltimore Tuberculosis Exposition J H Elliott
127 Nevus Lipomatodes A Primrose
128 Uterine Fibromyoma with Pyosalpinx W H Pepler

Mississippi Medical Record, Vicksburg

April

129 Case of Re establishment of Menstruation After Ovariotomy W C Elliott
130 A Study of the Mosquito Thomas Hunter

FOREIGN.

Titles marked with an asterisk (*) are abstracted below Clinical lectures, single case reports and trials of new drugs and artificial foods are omitted unless of exceptional general interest

The Lancet, London

April 2

1 Some Laryngologic, Rhinologic and Otologic Experiences John Bark
2 *The Pathology and Surgery of Certain Diseases of the Pancreas A W Mayo Robson
3 The Precipitin of Cobra Venom George Lamb
4 *A New Method of Testing the Blood and Urine with Special Reference to the Determination of the Excretory Efficiency of the Kidney A E Wright and J Newport Kilner
5 *Remarks on the Relations of Pulmonary Tuberculosis to Other Diseases F Parkes Weber
6 *Two Cases of "Corset Cancer" with Remarks on the Origin and Spread of Cancer R Clement Lucas
7 A Topographical and Clinical Study of Fibroids of the Neck of the Uterus (Cervix Fibroids) J Bland Sutton
8 Case of Sloughing of the Central Part of a Uterine Fibromyoma Shortly After Delivery John D Malcolm

2 **Pancreatic Disease.**—Robson's third lecture begins with a discussion of pancreatic cysts, the symptoms of which vary, according to the size and seat of the tumor, though there have been exceptional cases presenting very few symptoms and requiring no active treatment Occasionally excision may be performed Aspiration is more dangerous than free incision and drainage The situation for the drainage must vary according to the circumstances He gives his own experience, and a search through the literature reveals 160 cases operated on, 140 of which have recovered or cure is supposed to have taken place Injuries of the pancreas have been thoroughly written up by Mikulicz Radecki and he passes over them to the subject of pancreatic calculi, which as a rule show no calcium carbonate and are opaque to the Roentgen rays, an important point for the diagnosis As these are generally associated with serious and usually progressive disease their diagnosis is of importance He considers their treatment by sialagogues useless and surgical treatment as probably now offering a chance of cure. He would incise about one and a half inches to the right of the middle line, split the right rectus and lengthen the incision upward or downward as needed If the opening of Wirsung's duct has to be explored the second part of the duodenum is to be incised, the papilla laid open and any

impacted calculi removed. If they are more deeply placed in the ducts, the organ may be explored either through the gastrohepatic omentum or reached through a slit in the omentum, the calculus cut down on and extracted by a scoop or forceps. The hemorrhage must be arrested by ligatures. The duct can be sutured and the incision in the gland brought together by buried sutures, the peritoneal covering being coapted by a continuous suture. If leakage is feared a gauze drain may be inserted. When the duodenum is opened it must be closed in the usual way. The incised papilla need not be sutured. Medical treatment of malignant disease is purely symptomatic. Palliative operations for the relief of cancer and pancreatitis associated with jaundice are useless. Even if the operation is survived life is not very much prolonged. Sarcoma and carcinoma occurring in the tail of the pancreas may be removed with some chances of recovery, and if the disease is primary and no secondary growth or glandular involvement has occurred, great prolongation of life is possible.

4. **Blood and Urine Testing.**—The principle of the method described by Wright and Kilner is as follows: A standard quantity of normal red corpuscles in a measured volume of salt solution of standard strength furnishes a test fluid. The urine or blood serum from which that urine is derived is mixed in progressive dilutions in a capillary tube with measured volumes of the standard suspension of red blood corpuscles. The point is determined at which the urine or serum has been so far diluted as to allow of complete hemolysis with the standard suspension. From these data taken in association with the data obtained on diluting the suspension with progressive dilutions of decinormal sodium chlorid solution, the concentration of the serum and urine is calculated. The quotient obtained by dividing the latter by the former is denoted the excretory quotient. The method of forming the standard suspension of red blood corpuscles is given and a number of cases illustrating the process are tabulated.

5. **Tuberculosis.**—Weber discusses the reciprocal relation between tuberculosis and other diseases, pointing out the association of congenital pulmonary stenosis with a predisposition to tuberculosis from not only the imperfect blood supply, but the defective general development. Amyloid disease of the liver is a very rare complication, but fatty liver is so frequently found that a causal connection between the two diseases is generally admitted. Cirrhosis is not rarely found associated with tuberculosis of the lungs or peritoneum, and in a few cases may be due to tuberculosis itself. Alcoholism is evidently a cause in many cases and kidney disease is a very serious complication, usually the result, he thinks. Gout is rarely associated with pulmonary tuberculosis, and this is possibly due to the meat diet and the more generous fare of gouty subjects. There are, however, marked exceptions to the rule of the antagonism of two diseases in persons addicted to alcoholism, and those with general decrepit constitutions. There is sometimes supposed to be an antagonism between cancer and consumption, but there are a great many apparent exceptions. Cancerous patients, however, are generally advanced in life, and have lived well, which may have something to do with the apparent exemptions. Lymphadenoma tends to become associated with tuberculosis and diabetes mellitus is a very common associated disease. Syphilis has been remarked as having a special antagonism, but the majority of French writers think that it predisposes to tuberculosis by lowering the general condition, and that there is some causal relation between the association of multiple neuritis of the alcoholic type and pulmonary phthisis.

6. **"Corset" Cancer.**—Lucas reports two cases which he thinks demonstrates a site of origin of cancer dependent on the friction of the upper edge of a corset where it crosses the anterior fold of the axilla. He has credited this largely to chronic irritation, but supposing the cancer to be due to an organism from without, rubbing in of the organism might be amply effective. The author referred to other sites of origin associated with irritation or disease, and syphilis also producing injuries sometimes proves to be the fore-runner of cancer. Inoculation and contagion were also considered and the infection theory as well as recent observations showing the pictures of mitotic changes in the cancer cells.

British Medical Journal, London.

April 2.

9 *The Detection of Early Tubercle in the Lungs. Isambard Owen.
10 *The Early Diagnosis of Tuberculosis of the Lungs. C. G. H. Baumler.
11 Pathology and Surgery of Certain Diseases of the Pancreas. A. W. Mayo Robson.
12 The Chemistry of the Urine in Diseases of the Pancreas. P. J. Cammidge.
13 The Adaptation of the Pancreas. F. A. Bainbridge.

9. **Tuberculosis.**—Owen mentions some of the diagnostic points of early tuberculosis, remarking, first, that many cases do not advance beyond the early stages as shown by postmortems. In case of tubercle attacking the serous membranes and the patient surviving, the tendency toward permanent arrest of the new growth is marked, but in the loose tissue of the lung it is more apt to progress. There may, nevertheless, be intermissions, though the bacillus can still be detected, and these remissions would have attracted more attention were it not for the fact that they have been attributed generally to the treatment given. In most cases of chronic tubercle, therefore, we have a mixed morbid anatomy, some fibrous scar tissue and some caseous material of different dates. The chief physical signs are those of consolidation or the presence of what is called tubular or harsh breathing, change in the voice sounds and dullness on percussion. The hearing of well-marked tubular breathing over the chest wall implies that over the area covered by the stethoscope, the superficial layer, at least, of the lung is enough to conduct the sound to the surface, and at the same time abolish the normal vesicular murmur. The actual depth of the superficial layer is difficult to say, but he thinks it does not exceed half an inch. Harsh breathing, associated with voice changes, however, is still more significant and well marked bronchophony must indicate a rather extensive tract of consolidation. The result of percussion may be less marked and does not always correspond with the actual condition of things; sometimes the affected apex is the more resonant of the two. He advises the use of both light and deep percussion, comparing the results. If it is more marked with the light than with the deep percussion there is probably a thickened pleura. If the reverse obtains it suggests a deeply seated patch of consolidation. The question what consolidation really means is of importance, whether it consists of grey granulations, of fibrous scar or of bronchopneumonic products. Moist sounds during inspiration may indicate granulations, though not necessarily a breaking down of the tissue. Clicks at the end of inspiration are formally diagnostic of tubercle, but they may occur at later as well as earlier stages. Tuberculous crepitations may be accompanied by light, dry and wheezing rhonchi, which differ from the asthmatic or catarrhal type by being more localized, but if neither moist sounds nor rhonchi can be found it does not necessarily follow that the condition is not progressive. A daily rise of temperature and progressive loss of weight are almost formal evidence of advanced tuberculosis, even if the physical signs fail. Cavernous breathing is also mentioned, and it may be noticed even over small cavities, but it may also be heard with the stethoscope brought near the trachea, which suggests caution in its estimation. Pectoriloquy is of less value than cavernous breathing, and is not always heard over small cavities, and may be heard where no cavities exist. The earliest physical sign is usually neither dullness or harsh breathing or alteration in the voice sound, but a local change in the character of the bronchitic rhonchus, which ordinarily does not change.

10. **Tuberculosis.**—Baumler calls special attention to the early involvement of the apices, the loss of weight, the temperature signs, strictly localized and persistent râles of various kinds, fine crepitations heard over a limited area, disappearing or being replaced by coarser râles, etc.

Journal of Tropical Medicine, London.

April 1.

14 *Etiology of Scurvy. Myer Coplans.
15 Cold Weather Mosquito Notes from India—Malaria in Umritzar and Its Causes. (Continued.) G. M. Giles.

14. **Scurvy.**—The incidence of scurvy in the Transvaal in the burgher camps among soldiers and natives is described by Coplans, who can not find adequate proof that the food factor is the cause. The clinical facts also would seem to oppose the contention. The infection, however, seems to occur through the mouth, the general system being involved later and secondarily, but how the primary infection occurs and how it gives rise to disease in the mouth is not capable of being definitely stated and needs further investigation. He thinks the facts adduced seem to prove that scurvy is not due to either the presence or absence of any particular kind of food, but rather to infection for which food may act as a vehicle under conditions of dirty storage or dirty preparation. Considering that the disease prevailed in inverse proportion to the standard of personal hygiene of the individuals infected, the infectivity seems to depend on the sanitary habits and perhaps unwholesome occupations.

Indian Medical Gazette, Calcutta.

March.

16 Short Note on the Parasite of Kala-Azar. Charles A. Bentley.
17 Enlarged Prostate. (Continued.) W. J. Wanless.
18 The Blood Examination of 3,400 Cases of Febrile Disease in Bombay. Seasonal Prevalence of the Different Malaria Parasites. Diagnosis of the Variety of the Young Stained Parasites. (Continued.) Arthur Powell.
19 Infant Mortality. H. Sen.

Presse Médicale, Paris.

20 (I, No. 17.) *L'insuffisance respiratoire. Traitement par la gymnastique et la rééducation respiratoires. G. Rosenthal. Second article in No. 23.
21 *The Milk Question. P. Diffloth.—La question du lait au point de vue zootechnique.
22 Le bain de siège (sitz bath). A. Zimmern.
23 (No. 18.) Le centenaire de l'Internat. M. Letulle.
24 La ration alimentaire des neonatorum. V. Bue.
25 La jéjunostomie dans le traitement du cancer de l'estomac. La [illegible] P Riche.
26 (No. [illegible] en eau pure Abstract.
27 Cure [illegible] crurale. Guibé and R. Proust.
28 (No. [illegible] istrique La dyspeptine. Maurice Hepp (Paris).
29 (No. 21.) Hommage au professeur Cornil. See page 903.
30 Enseignement théorique de la pathologie médicale. E. Brissaud.
31 (No. 22.) Les rayons N. Leur recherche dans quelques affections du système nerveux. G. Ballet. See page 928 and editorial page 1023.
32 (No. 23.) Hospitalisation des tuberculeux. E. De Lavarenne and M. Letulle (Continued from Nos. 20 22.) See page 843.
33 L'alliance d'hygiène sociale à Nantes. E. Fuster.
34 *Sphygmomètre. Mladoveano (Bukharest).

20. **Breathing Exercises.**—Rosenthal urges that the profession take personal charge of the physico-therapeutic measures which time is proving of such vast importance. This applies particularly to gymnastic respiratory exercises as a preventive and curative measure for affections of the air passages. He asserts that Knopf in his memoir on the subject in 1901 merely confirmed and realized the ideas which Marfan, Grancher and Jaccoud of France had long been preaching. It is as absurd to breathe through the mouth, he claims, as it would be to eat through the nose. In taking the chest measure he has found it useful to have a tape in which the inches are marked off toward each end from a central point which is placed on the spine. This reveals any asymmetry at a glance. He has found that the diaphragm may be subject to incompetency, inco-ordination or unilateral paresis. This insufficiency of the diaphragm is revealed by the immobility of the lower ribs and interspaces. As the subject reclines the abdominal wall is likewise immovable, with other signs almost simulating pleurisy. Radioscopy will clear up the diagnosis. The subjects for whom respiratory exercises are particularly indicated are the "false adenoidians," and cases of nervous nasal obstruction. Also of pseudo-hypertrophy of the heart in growing children. In the latter case the heart is normal but the chest has not grown to keep pace with it. Exercises in deep breathing are the elective, rapid and specific means of restoring the balance in these cases. He also states that the prolonged course of convalescence after infectious diseases is in many cases due to the lack of sufficient respiration. Appropriate exercises would materially shorten the convalescence. Keeping the patient out of doors is a blind means of accomplishing what is needed, but appropriate exercises are the systematic application of the same principle which is both preventive, therapeutic and for after-treatment. Such exercises are the specific preventive of tuberculosis. In conclusion he comments on the dangers of inertia of the diaphragm, which affects secondarily the functions of the liver, intestines, etc. Every inflammatory affection of the peritoneum near the diaphragm is liable to limit the excursions of the diaphragm, while gaseous distension of the abdomen or its organs or pregnancy has the same effect temporarily, which may, however, outlast the cause.

21. **Zootechnical Side of the Milk Question.**—Diffloth refers to the way in which cows have been bred to produce the maximum of milk, and remarks that this exploitation of the milk-producing function for commercial purposes is contrary to nature, and has perhaps unfitted the milk for the use of infants.

26. **Sterilized Drinking Water.**—The Lepage apparatus is briefly described with an illustration, and its use recommended for barracks, ships, private houses, etc. It boils and cools the water still in the pipes in which it is brought into the building. The water first collects in a tank like that for a water-closet and passes downward in a small pipe. The pipe then broadens to about six times its former diameter and passes straight upward to the level of the tank, opening into a small conical receptacle, the point upward, terminating in a curving pipe. A gas jet below this conical receptacle keeps the water boiling and by expansion it passes on into the curving pipe above whence it drips, a drop at a time, into a much wider part of the pipe, paralleling the upright pipe above mentioned. The boiled water thus stands in contact with the cold water in the first upright, which cools it and it is drawn from a faucet as needed. The illustration shows that the curving pipe is above the level of the water in the first tank, and consequently the water can not pass on unless it is first expanded by the action of the heat under the boiler receptacle.

28. **Treatment by Artificially-Obtained Natural Gastric Juice.**—Hepp was formerly interne of the Paris hospitals and has been meeting with great success in his efforts to supply a natural gastric juice for therapeutic purposes. He obtains it by a Pawlow opening into the stomach of pigs. The gastric juice thus obtained keeps indefinitely after filtration if sheltered from light and air, and has fully established its usefulness in cases of gastric insufficiency, especially those due to dyspepsia from atony, inadequate secretion of gastric juice, in the gastro-intestinal disturbances of nurslings consecutive to acute enteritis, and in the stomach troubles of tuberculous subjects. It has also proved its value in the gastric troubles of chlorotics, of over-fatigued and neurasthenic subjects and of pregnant women. It is generally taken during the meal, one to three tablespoonfuls of the limpid fluid being added to some beverage, beer, lemonade, champagne or some mineral water. It is sometimes best to refrain from telling the patient the character of the medicine he is taking.

34. **Sphygmometer.**—Mladoveano has applied the sphygmograph to determine the arterial pressure at the wrist, and gives an illustration of the instrument modified for the purpose. It supplies a force to crush the artery, indicates when the artery is crushed and the blood current thus interrupted, and registers the pressure. His modification can be added to any sphygmograph and transform it into a sphygmometer without interfering with its other uses.

Semaine Médicale, Paris.

Last indexed page 1054.

35 (XXIV, No. 10.) *Le traitement chirurgical de la paralysie faciale. F. Munch (Paris).
36 *Le "signe du tapotage" dans la phthisie pulmonaire avec cavernes. H. Erni (Gersan).
37 Un symptome exceptionnel et non encore signalé des fistules esophago-trachéales: Aérophagie. E. Adenot and L. Cadet. Abstract.
38 Recovery from Spasmodic Spinal Paralysis. Nicod-Laplanche. Abstract.
39 *Nouvelle methode de suspension du testicule dans la cure radicale du varicocèle. F. Carta. Abstract.
40 Procédé à double suture pour la cure de l'entropion cicatriciel. A. Galliani. Abstract.
41 (No. 12.) *Diagnostic et traitement des accidents dus aux adhérences et aux brides péritonéales. F. Lejars (Paris).
42 La microgastrie primitive. J. A. Bendersky (Kiev). Abstract.

35. Surgical Treatment of Facial Paralysis.—Munch reviews the experiences in this line in America, France, Germany and Great Britain. The results apparently establish that grafting the facial on some neighboring nerve is capable of restoring a certain tonicity to the paralyzed muscles and thus attenuate the asymmetry of the face in the fortunate cases. But it is unable to restore to the muscles their spontaneous movements, and on the other hand, it entails certain inconveniences which are of some importance, such as associated movements of the shoulder and face. Another disadvantage is the atrophy sure to follow in the muscle innervated by the nerve chosen for anastomosis with the facial—no matter what technic of anastomosis is adopted. In some cases the atrophy of the trapezium or the hemiatrophy of the tongue does not cause serious functional disturbance, but in others the disturbance is not negligible. On the whole, Munch thinks that the disadvantages outweigh the inconveniences of the paralysis of the face, but if surgical treatment is contemplated the evidence is preponderantly in favor of facio-hypoglossal nerve anastomosis instead of the spino-facial graft which entails more serious disturbances.

36. The Knife or "Tapotage" Sign of Cavity in Lungs.—Erni applies this term, "tapotage," which means tapping or slapping, to describe the reaction which he has found almost pathognomonic of a tuberculous cavity in the lungs. He percusses the chest over the apex of the lungs, using for the purpose a flexible knife—a silver paper cutter—weighing about 100 gm. The blade is taken in the fingers and the chest is tapped with the handle, no force being applied, but merely the elasticity of the knife doing the percussion. The handle rebounds as it touches the chest wall. This light percussion produces no effect over normal parts, but when there is a cavity beneath, the percussion causes the subject to cough immediately and expectorate, all in less than a minute. If the same point is percussed several times an ecchymosis forms if there is a cavity beneath, but not otherwise. The cough and expectoration with which the cavity reacts to the percussion have therapeutic value, as they clear it out. The amount of sputa expelled is also an indication of the size of the cavity. Erni has been studying this sign for nine years and has always found it positive when there was a cavity located near the surface. He has also found this knife percussion an important aid in clearing out a cavity. The sputa become mucous and then dry up entirely as the cavity heals after evacuation; the walls become thicker and the tapotage sign can then no longer be elicited.

39. Suspension of Testicle in Treatment of Varicocele.—Carta suspends the testicle from the pillars of the external inguinal ring, using for the purpose a musculo-fibrous bag formed out of the cremaster and vaginalis. This allows excision of the varicosed veins and averts all dragging on the cord. The results have been perfect in 22 patients on whom he has operated by this technic during the last fifteen months. The technic is described in detail.

41. Disturbances from Adhesions and Peritoneal Bands.—Lejars does not include postoperative adhesions in this study, but merely those which have no appreciable source or have long survived the primary cause. Such adhesions and bands may entail trouble manifested solely by pains and vague functional disorders; or they may induce strangulation of the intestine, in all its forms, or a clinical picture reproducing in every particular the syndrome of this or that distinctly characteristic abdominal affection. He relates a number of examples of gastrointestinal disturbances following, after a longer or shorter interval, some apparently slight traumatism affecting the abdomen. The most prominent symptoms were vomiting, pains, tenacious colics and attacks of pseudo-occlusion, all of which subsided after a simple exploratory laparotomy and detachment or excision of the adhesions or constricting bands. The feature of these cases is the long interval that may elapse before any disturbances are noted. It is sometimes difficult to trace back to the primal traumatic cause of the disturbance. When no traumatism can be discovered in the antecedents the diagnosis is more difficult and the rebellious colics, vomiting, constipation or diarrhea are liable to be attributed to visceralgia or some other mysterious neurosis, when in reality the sole trouble is some peri-intestinal adhesion or restraining band. Lauenstein reported nine years ago 9 cases of this kind, and Lejars here analyzes 2 from his own experience. In one a woman of 30 had suffered from abdominal troubles for fifteen years, attributed to ingestion of a caustic. The pains grew worse and worse, mostly located in the left side, and were accompanied by nausea and vomiting. For a long time the patient had been fed exclusively by the rectum. Signs of pseudo-occlusion were observed at intervals. The patient had become addicted to morphin as the condition had only become aggravated under the various methods of treatment applied. An exploratory laparotomy disclosed a band of omentum constricting the transverse colon and another crossing the cecum. Both were excised and there has been no recurrence of the disturbances. The second patient was a woman of 40 who had had stomach trouble for thirteen years, distinguished by vomiting and pains exaggerated when standing erect, located to the left of the umbilicus. A cicatrix about the size of a quarter was found in the anterior wall of the stomach. This organ was adherent to the liver, and a broad band, about three inches long, fastened the cicatricial and adherent portion of the stomach to the wall of the abdomen. After excision of this band the patient was cured. These bands are probably the relics of some long extinct inflammatory process, the symptoms of which were unnoticed or have been forgotten—which explains the difficulty of a proper diagnosis. Perman has related an instructive case of a congenital band of this kind. The patient was a young man who had suffered from frequent colics since he was 8 years old. The pains developed especially after eating and after physical exertion. The condition grew constantly worse and a small umbilical hernia was incriminated. As long as the subject remained confined to his bed he had no disturbance, but as soon as he got up the pains recurred, severer than before. Each attack lasted from twelve to fourteen hours and terminated suddenly with passage of flatus. The abdomen was opened and a round cord as large as a penholder was found extending from the umbilicus to the lower portion of the sigmoid loop, where it spread out into a fan. A complete cure followed its excision. The symptoms caused by these adhesions or bands are gastric, intestinal or pelvic. They testify to the presence of some obstacle and to a painful distension above the obstacle. The lack of response to medication and the exacerbation in certain attitudes are aids in differentiating. The subjects are liable to become neurasthenic, but this phase is secondary. A settled pain, recurring always in the same zone, usually can be traced to some real, mechanical and curable cause. In the pelvic form the pains in the pelvis, sacral or iliac regions recur also in attacks, usually coinciding with the onset of menstruation. The organs are sound and the adhesions are due to some old, long past pelvi-peritonitis. The appendix may have co-operated in its production, but the main point is that all disturbances cease as soon as the adhesions are detached or excised. In one of Gersuny's patients McBurney's point was painful, but so was also a corresponding point in the left side. There was constipation and this aggravated the pains, which amounted at times to severe colics. Enteroptosis, chronic constipation and pelvic neuralgia had been diagnosed in turn, but a laparotomy disclosed merely adhesions. Intervention must be complete in such cases, with multiple and integral liberation. We know that about a third of all cases of strangulation of the intestine are due to constricting bands—too often attributed to mere constipation. Lejars witnessed the death of a young man from this cause. There had been no vomiting, very little distension, some flatus still passed and after a week of expectant treatment the exploratory laparotomy revealed a mass of adhesions fastening the sigmoid flexure and part of the small intestine to a large cicatrix on the abdominal wall. One peculiarity of this class of occlusion from the multiple adhesions is that they fail to cause trouble for such a long time, but when it does develop it is serious. In another case, for instance, a man of 66, large, fat, diabetic, had never had any intestinal disturbances of any kind except for a vague history of a brief painful affection of the epigastrium twenty years before. Suddenly pain developed in the left hypochondrium and flank, and there was considerable meteorism above the umbilicus. The rectal evacuations still continued and there was no vomiting. Medication for several days did not improve the condition, the meteorism and constipation increased and the pulse showed trouble. An adherent and compact mass of intestines was found above the umbilicus, involving the transverse colon and small intestine. The patient died in coma in a few days. In conclusion Lejars reviews a large number of cases that have been published in which the constricting bands caused a syndrome simulating that of ulcer of the stomach, cholelithiasis, cancer, etc., calling especial attention to some cases of occlusion of the common bile duct by adhesions alone. As these conditions require operating in any case, differentiation of these relics of inflammation is not so important. The unexpected success of many of these purely liberating operations is most encouraging. They may require a slow, progressive, minute dissection and the adhesions must be extirpated as completely as possible to guard against recurrence of trouble. If integral liberation is impossible it is preferable to establish some roundabout route by anastomosis rather than to excise the wall of the stomach or intestine.

Deutsche medicinische Wochenschrift, Berlin and Leipsic.

43 (XXX, No. 13.) *Ultramikroskopische Untersuchung über die Ursache der sympathischen Ophthalmie. E. Raehlmann (Weimar).
44 *Action of Radium on the Eye. Greeff (Berlin).—Ueber Radiumstrahlen und ihre Wirkung auf das gesunde und blinde Auge.
45 *Ueber die Einwirkung von Radium-Strahlen auf das Carcinom der Mause. H. Apolant.
46 Unsere heutige Kenntnis der Radioactivität. R. H. Weber (Heidelberg).
47 *X-Rays to Outline Heart. E. Grunmach (Berlin).—Ueber die Leistungen der X-Strahlen zur Bestimmung der Lage und Grenzen des Herzens.
48 Ein durch Behandlung mit [illegible] beeinflusstes Spindel-Zellen-Sark [illegible]
49 *Zur Thiosinamin-Behandlung [illegible] Lengemann (Bremen).
50 Shall We Tell Patients of Impending Blindness? C. Hamburger.—Soll man Augenkranken die Erblindung verheimlichen?
51 *Ein auskochbares Thermometer (that can be boiled). Kantorowicz (Berlin).
52 Medicolegal Accident Insurance Decisions.—Die Rechtsprechung, etc.
53 The Russian Country District Doctor A. Hippius (Moscow).—Moskauer Brief.
54 Zur Geschichte der Medizin (history of medicine). Fürer.

43. **Ultramicroscopic Study of Cause of Sympathetic Ophthalmia.**—Raehlmann has been applying the perfected ultramicroscope to the study of metastatic inflammation and gives illustrations of the findings in a case of phthisis bulbi requiring enucleation. The eyeball was examined under a microscope magnifying 2,400 diameters. The vitreous body was found swarming with motile bacteria apparently all of the same kind and representing what he believes to be the first instance of the direct inspection of a pure culture of living bacteria in the interior of the tissues. These bacteria are less than .25 of a micron in one diameter, but are longer in the other, too large to pass through the vessel walls like the particles of albumin, which is also prevented by their lively motions. It is possible, however, that the younger forms are still smaller and are thus able to pass through the vessel walls. This assumption would explain the cyclic character of certain inflammations. It would also explain sympathetic ophthalmia. The primary injury of the eye allows the proliferation of these bacteria in the vitreous body for which they seem to have a predilection. This process remains latent, that is, restricted to the vitreous body, until the birth of another generation. The very small younger forms pass readily into the blood and thus the first condition for the formation of metastases is produced. They circulate in the blood until they reach the vitreous body in the other eye. The vitreous humor as a watery fluid containing very little albumin is unique in the organism, providing a culture material unlike anything to be found elsewhere in the body. Hence, it follows that the bacteria circulating in the blood, if they are not eliminated by the natural emunctories beforehand, find conditions favorable for them in the vitreous humor and consequently locate there, and there alone. His research has further shown that the primary and sole location of the penetrating microbes is in the vitreous body. The inflammation spreads thence to the ciliary bodies and the iris and backward to the optic nerve, but this is merely the inflammatory reaction of the surrounding tissues, not due to the direct action of the bacteria, as none was found in these parts. Sympathetic ophthalmia is, therefore, a metastatic infection of the second eye induced by ultramicroscopic micro-organisms. The interval before the invasion of the other eye may vary with the virulence, number, etc., of the germs. He does not think that it can occur under six weeks, but is liable at any time after this, even after several years. The inflammatory reaction in the surrounding tissue is probably the effect of the products of bacterial metabolism, and may extend a long distance from the located microbes, but we have no reason for assuming that this inflammatory reaction alone is able to induce a sympathetic ophthalmia.

44. **Action of Radium Rays on the Eyes.**—Greeff discusses the fact that the rays of radium are visible to the naked eye in the dark. It is not a phosphorescence, as radium maintains this property indefinitely when kept exclusively in the dark without exposure to any light. It induces fluorescence in other objects and also emits the radium rays proper. He experimented with a mixture of both barium and radium chlorid, containing about .02 gm. of the latter. The paper in which it was wrapped became fluorescent under its influence, as also the fluorescent screen, but the light thus emitted is the ordinary light of fluorescence. Not so the light induced by the direct application of the radium to the eye. The radium mixture, enclosed in a leather box, to eliminate all phosphorescence, is approached within 10 cm. of the eye, which then perceives a diffuse sea green light, increasing in intensity as the radium is brought closer to the eye. It is impossible to locate the source of the light, as it is diffuse, and the intensity is the same whether the radium is held above or at the side of the eyes, or whether there are interposed objects, eyelids open or shut, the hands held over them, or even the interposition of a steel plate. The radium rays penetrate readily every substance known to date, with no attenuation, in which they differ from the Röntgen rays. Himsted and Nagel explain this action of radium on the eye by assuming that the radium induces fluorescence in certain tissues of the eye, and that this fluorescence is perceived as a light by the retina. Greeff examined the various parts of pigs' eyes to determine their power of fluorescence in these conditions and found that it was actually less than that of the surrounding skin, but that the radium did not bleach the visual purple in the retina in the dark, thus excluding the possibility of a direct light action on the retina. He consequently inclines to accept Himsted and Nagel's theory. No injurious effect on the eyes was perceptible from these experiments with radium radiation. The sensational announcements that with radium the blind can see are disproved by the above statements. Persons with relics of vision may be able to see the outline of dark objects placed on the fluorescent screen lighted up by the radium rays, but the same effect is obtainable with any screen and kerosene lamp. The same persons may be able to perceive, like the sound eye, the diffuse greenish luminosity induced by the radium rays proper, but this is far from actual seeing. Nothing has been advanced to date which encourages any hope that radium will enable the blind to see. London's announcement that with the radium rays the blind are able to see was mentioned in The Journal, xli, page 400.

45. **Action of Radium Rays on Carcinoma in Mice.**—Apolant gives the results of radium treatment of a number of mice which had been inoculated with scraps from extremely malignant carcinoma in man, according to the Borrel and Jensen technic. The communication proceeds from the Institute for Experimental Therapy at Frankfurt, in charge of Professor P. Ehrlich. The mice were the seventh or eighth generation of inoculated animals. Out of 19 tumors, the size of a pea to that of a large bean, 11 retrogressed completely under the influence of the radium rays and the remaining 8 were reduced

to mere traces of the former tumors. The growths began to retrogress before even the effect of the rays was shown in the falling out of the hair. *On the other hand, the controls showed* enormous increase of the tumors with 6 exceptions, in which the tumor remained *stationary* or was spontaneously absorbed, as occurred in 2 cases. The findings in both sets of animals are shown *in parallel* illustrations which present a graphic picture of the invariable success of the radium radiation, with details of its application. The radium was applied directly over the tumor, in light contact with it. The duration of treatment ranged from six to twenty-three days, during which time the radium was applied *from two to fourteen times*, each sitting from five to twenty minutes long. The few instances *in which after the tumor had* retrogressed to mere traces and stopped there, notwithstanding repeated and more vigorous radiation, the time and exposure limits above were much exceeded. The refractory behavior of the tumor at this point was probably due to transformation of a certain part of the growth into connective tissue.

47. **Determination of Position and Outline of Heart with X-Rays.**—Grunmach *gives an illustration of an improved* vacuum apparatus for *x*-ray work. With it he has succeeded *in distinguishing* three classes of "heart neurasthenics," as he calls them: 1, those with heart of normal size and position with slightly increased pulse rate and regular rhythm; 2, those with normal pulse rhythm and no dilatation, but with a displacement of the heart downward and sideward by cardioptosis, and 3, those with a slight enlargement of the heart, the pulse rhythm periodically transiently irregular, bigeminus or trigeminus, easily restored to normal by massage of the heart. Conditions remain normal afterward for days with rest and hydrotherapy, but under stress *of excitement* the pulse becomes irregular again. It can again be restored to normal by massage of the heart and may persist normal under repose and hydrotherapy. The slight enlargement of the heart, however, remains uninfluenced by all these measures. The practical results of his numerous experiments and findings center in the maxim that the old, tried heart remedies are not to be discarded in favor of the newer hydrotherapeutic measures in treatment of heart disease, but should be combined with them in appropriate cases. He urges *x*-ray examination of all cases of heart disease before applying hydrotherapy for fear that a *latent or incipient aneurism of the aorta may* escape our other modes of investigation. It is sure to be aggravated by the hydrotherapy. *He found that the outline of the heart in* healthy subjects never varied under the hydrotherapeutic measures nor under unusual exertion nor immoderate use of alcohol nor hot baths.

49. **Thiosinamin Treatment of Contracture.**—Lengemann reports additional cures from the injection of thiosinamin in cases of Dupuytren's contraction, and states that the fine results obtained have been permanent for more than a year since. He gives an illustration of still another case, the patient a man of 35, *the contracture of ten years' standing. About forty* to forty-five injections were made in the course of seven or eight weeks and normal flexibility was restored. *Similarly* fine results were obtained in the case of a traumatic contracture of the thumb, which regained its normal excursions after 25 injections. He always injects the fluid directly at the point where its action is desired, first injecting cocain, and follows with massage, passive movements and application of a dressing saturated with the thiosinamin.

51. **Thermometer That Can Be Boiled.**—Kantorowicz has improved on the ordinary clinical thermometer by having the upper end of the mercury tube spread out into a reservoir large enough to contain ten times the bulk of the mercury in the thermometer. The instrument can thus be placed in boiling water without fear of injury or even be sterilized with steam. For convenience he calls it the "pyrol thermometer."

Mitteilungen a. d. Genzgebieten, Jena.

Last indexed page 208.

55 (XII, No. 5.) Beiträge zur *Physiologie* des Esophagus und der Kardia. J. v. Mikulicz (Breslau).
56 *Experimentelle Untersuchungen über die Decapsulatio renum. B. Asakura (Berne).
57 *Experimentelle Untersuchungen über die zur Heilung chron. Nephritiden von Edebohls vorgeschlagene "Nierenentkapselung." H. Stursberg (Bonn).
58 *Ueber die Konfiguration der lumbalen Intervertebral-Räume. H. Klein (Kiel).
59 *Spontane Appendizitis bei einigen Tier-Species. M. Mori (Berne).
60 *Artificial Infection of Gall Bladder After Resection of Common Duct. A. Brion and H. Kaiser (Strasburg).—Künstliche Infektion der Gallenblase mit Pneumokokken nach Choledochus-Resektion.
61 *Influence of Operations on Course and Termination of Diabetes. O. Körner (Rostock).—Einfluss von Operationen auf den Verlauf und Ausgang von Diabetes mellitus.
62 *Invagination in Children. L. Kredel (Hanover).—Ueber die akute Darminvagination im Kindesalter.
63 Arthritis chronica ankylopoetica. P. Janssen (Bonn).
64 Anurie infolge doppelseitige Nieren-Nekrose, verursacht durch Druck-Erhöhung in den Nieren. J. H. Saaijer (Leyden).

56 and 57. **Experimental Decapsulation of the Kidneys.**—Asakura has performed on rabbits and dogs Edebohls' method of decapsulation of the kidney. The operation was always well borne. *A new envelope of connective tissue formed around the* decapsulated kidney and new blood vessels formed in the new capsule and on the surface of the kidney. *Animals with a* suppurating kidney were also treated in the same way, but *with less success, although even after injection of* staphylococci into the vein of the ear the course of the infection was *more favorable in the decapsulated animals than in the con*trols. Stursberg's experiments in the same line on rabbits and dogs, both healthy and under the influence of potassium chromate, were equally favorable in regard to the effects of decapsulation or nephrorrhaphy. The decapsulation was always followed by a new formation of vascular communication between the kidney tissue and the adjacent tissues, which apparently had an essential influence on the ample supply of blood to the kidney.

58. **Technic of Lumbar Puncture.**—Klein *gives a number of* diagrams of the lumbar intervertebral spaces as seen by radioscopy *in the cadaver—not studied from the skeleton.* The conclusion is evident that in the third and fourth lumbar intervertebral spaces the conditions are most favorable for lumbar puncture. The lumbosacral spaces are broader but much lower, sometimes so low as to afford very unfavorable conditions. The general skeleton is no criterion as to the size of the spaces between the vertebræ.

59. **Spontaneous Appendicitis in Animals.**—Mori found spontaneous appendicitis in two rabbits and one dog. In one rabbit there was proteus, coli and staphylococcus infection, in the others coli alone. He was able to induce an artificial appendicitis by injection of bacteria into the arteria appendicularis.

60. **Artificial Infection of Biliary Passages with Pneumococcus.**—After extensive resection in dogs of the common bile duct, freshly virulent pneumococci from sputa were injected into the gall bladder. The cocci vanished from the bile, but circulated in the blood, and in the stagnating contents of the gall bladder obligatory anaërobics were found in great numbers. These findings explain the absence of pneumococci in the gall bladder of pneumonia cadavers. None of the animals displayed any pulmonary lesions notwithstanding the pneumococcemia *and not even after exposure to cold.*

61. **Operations on Diabetics.**—Körner reviews 38 operations on diabetics undertaken on account of mastoiditis. In mild cases the sugar in the urine was increased but only temporarily. Only in the very severe cases is coma to be feared. An otherwise indicated operation need not therefore be omitted on account of an existing mild diabetes, but *in the severe* cases no operations should be undertaken unless under vital necessity. The details of the 38 cases are tabulated. He selected the cases of mastoiditis as affording conditions for better comparison. Only 7 of the total number were personally observed by him; 27 have already been published, and 4 were communicated by Kümmel.

62. **Invagination in Children.**—Kredel operated on 8 out of 12 children with acute invagination of the intestines. Only one recovered spontaneously, and all the others died. All but 2 were less than one year old. He urges prompt intervention and special efforts to avoid shock. *In severe cases he advises* to ligate the mesentery and make an artificial anus, or pos-

bly restrict the intervention to suturing to the incision the rst distended loop that comes to hand, opening it to allow racuation of the contents. Rapid operating is the only hope; he second day is usually too late. The indications are as ressing as for incarcerated hernia. Enemata and insufflation f air are dangerous.

Münchener medicinische Wochenschrift, Munich.

65 (LI. No. 12.) *Intrathorakale doppelseitige Vagotomie. H. St[illegible]
66 *Uebe[illegible] -kel-Bazillen in erhitzter Milk- (Munich). (h[illegible]
67 Uebe[illegible] Phthisikern. G. Riebold.
68 *Zur [illegible] Magensaftflusse (Reichmannscher Krankheit). A. Bittorf.
69 Syphilitic Etiology of Fbrous Orchitis. F. Lesser.—Zur Aetiologie der Orchitis fibrosa.
70 *Zur Kenntnis der Sekretions-Neurosen des Darms (of intestines). G. Geissler (Constance).
71 Improved Stethoscope. W. Hildebrandt (Freiburg).—Eine neue Verbesse[illegible]
72 Diverting the St[illegible] Röntgen Tube. G. W. Schiele [illegible] der Oberflächen-elektrezität vo[illegible]
73 Apparat zur ste[illegible] issigkeitsmengen (of large amo[illegible] (Vienna).
74 Die Schlaftänzerin Mme. Magdeleine G. im aerztlichen Verein zu München. F. Schlagintweit.

65. **Bilateral Vagotomy.**—Starck describes experiments on dogs in which the vagus was interrupted by stages, from the diaphragm to the neck. The technical difficulties were great. He did not find that the vagotomy had any influence on the esophagus at the time nor during the interval of more than nine months since.

66. **Destruction of Tubercle Bacilli in Milk.**—Rullmann found that the tubercle bacilli were still alive and virulent in milk heated to various temperatures for various periods of time, but never when the milk was heated to 68 C. (156 F.) for one hour, during which it was kept in constant motion. The taste of the milk and the chemical condition of the constituents of the milk are scarcely at all affected by this temperature, while the extremely virulent bacilli were all destroyed. He, therefore, commends this method of sterilization as perfectly effective while free from the objections of other technics.

68. **Continuous Gastrosuccorrhea.**—Bittorf distinguishes between the primary idiopathic form of chronic, continuous gastrosuccorrhea (Reichmann's disease), and the secondary form, accompanying dilatation of the stomach, ulcer, stenosis or catarrh. The idiopathic form is a neurosis, a disease *sui generis*, extremely rare. There is also an idiopathic variety which occurs only at intervals, as also a secondary form of this kind, secondary to hemicrania, tabes or brain affections. The idiopathic form may exist for years—seven years in one instance—and he describes a case in detail that had lasted for three and one-half years. Treatment includes sodium bicarbonate or magnesia, meat diet, frequent meals with tonics, hygiene and mild hydrotherapy. Treatment along these lines may not only relieve the symptoms, but realize a complete cure. There is evidently an excessive increase of the physiologic amount of gastric juice from morbid irritability of the secretory nerves. This irritation may be due to swallowed mucus from the throat, which is liable to induce the physiologic secretion in the empty stomach. The literature is reviewed.

70. **Secretory Neurosis of Intestines.**—Geissler's patient occasionally secreted large amounts of pure intestinal juice. He had long been subject to gastrointestinal disturbances and then acquired neurasthenia and exhibited symptoms of disturbance in the innervation of the intestines, manifested chiefly in the secretion of abnormal amounts of intestinal juice, causing diarrhea. The nervous character of this diarrhea was unmistakable. It only occurred after nervous strain or excitement and the feces showed exceptionally fine digestion. When the food passes rapidly through the digestive tract, as in ordinary diarrhea, it does not have time to undergo proper digestion.

Wiener klinische Wochenschrift, Vienna.

75 (XVII. No. 10.) Zur Kenntnis der Präzipitin-Bildung. F. Obermayer and E. P. Pick.
76 *Ueber "Pneum[illegible]" A. Ghon.
77 *Zur [illegible]
78 *Ueber [illegible] S. v. E. Radzikowski.
79 (No. 11.) Die Pathogenese der Erkrankungen der Gallen-Wege u[illegible] chirurgischer Behandlung. J[illegible]
80 Influence [illegible] of Antibodies. P. T. Muller.—[illegible] auf die Produktion der Antikörper.
81 Lykopodium und Tuberkel-Bazillen im Sputum. S. Platkowski (Lodz).
82 (No. 12.) *Ueber Verimpfungen von Carcinom in das Gehirn von Versuchstieren [illegible] tion of cancer). Zur Kritik der Ca[illegible] kiewicz. G. A. Wagner (von Eiselsl[illegible]
83 *Ueber intra-aurikulare Transplantation Thierscher Haut-Lappen nach der operativen Freilegung der Mittel-Ohr-Räume. A. Politzer (Vienna).
84 Ueber eine besondere insidiöse, durch das Fehlen der Krampfanfälle charakterisierte Form des Status epilepticus. A. Pick.
85 *Permanent Changes in Skin After Röntgen Radiation. L. Freund [illegible] r's clinic, Vienna). —Ueber [illegible] nach Röntgenbestrahlung.
86 Zur Kasuistik der Mesenterial-Varietäten. A. Neudorfer (Gersuny's service, Vienna).

76. **Pneumococcus Peritonitis.**—Ghon describes the pathologic anatomy of 4 cases of acute fibrinous-suppurative peritonitis originating in the stomach. The pneumonia diplococcus was found numerous in the exudate, sometimes alone and sometimes associated with other bacteria. The subjects were 23 to 69 years old. In 3 cases there was a carcinoma and in the fourth an ulcer in the stomach. A fifth case showed a similar picture after perforation of a gastric ulcer. There was a lung affection in 2 of the cases only. In conclusion Ghon suggests that disinfection of the mouth and nose might prevent infection from this source in gastrointestinal operations, and might possibly reduce the mortality still further. A. Fraenkel long ago insisted on disinfection of the nose as an important factor in treatment of injuries of the skull.

77. **The Reverse Side of X-Ray Treatment.**—Riehl exhibited a patient at his local medical society, March 4, who had been treated for chronic eczema by exposure of the parts, once each, to a soft tube for half an hour—a total of ten sittings. The regions involved were the neck, breast and arms. The eczema temporarily disappeared, but in its place extensive gangrene developed. It healed, but ulcerations recurred at times. A year after the *x*-ray treatment the exposed patches assumed a different aspect, with atrophy and telangiectasia, resembling a "fire mole," while the skin contracted until flexion of the elbow is reduced by one-third. The chronic eczema has returned and involves previously intact regions. The patient has thus been permanently disfigured by the treatment. Riehl also knows of a number of women who had the *x*-rays applied as a depilatory for the chin and upper lip, and atrophy and telangiectasia have developed not only over the spot, but extending down even to the nipple in certain cases. No remedy has yet been discovered to cure this telangiectasia. He warns in conclusion that pathologically altered skin is liable to react to the *x*-rays in a different manner from sound skin. He thinks the hour has come for radiologists to collect and publish their successes and failures, like the surgeons. He also insists that radiologists should be trained dermatologists to begin with, and that cutaneous affections which we are able to cure by other means should not be submitted to *x*-ray treatment. Even in lupus the results have only been temporarily favorable, on the whole.

78. **Simple Blood Test for Typhoid.**—This communication from Gluzinski's clinic at Lemberg is another highly favorable report on Ficker's ready-made diagnosticum for the typhoid agglutination test. See editorial on page 962.

82. **Inoculation of Animals' Brains with Carcinoma.**—Wagner found that animals tolerated the injection of cancer substance as a foreign body, but succumbed to infection from the pathogenic germs accompanying the implanted scraps. The research was undertaken to disprove Adamkiewicz' assertion that the simultaneous injection of cancroin with cancer scraps prevented the latter from developing. Both cancroin and cancer scraps were incorporated like a foreign body, exerting no specific effect either alone or together, and the death of the animals was due to casual infectious germs or in their the animals was due to casual infectious germs, and in their

83. **Intra-Auricular Transplantation of Thiersch Flaps After Evacuation of Middle Ear.**—Politzer accelerates healing after

a Panse or Körner plastic operation by transplanting Thiersch flaps when the surface is granulating, about the sixth to the twentieth day. He irrigates the ear with sterile water for several hours beforehand, then fills it with 6 per cent. hydrogen peroxid, and then after five minutes, dries and tampons with cotton. Three or four hours later he proceeds to the transplantation. He takes the flap from the inside of the thigh or arm, about 1 or 2 square centimeters in size, and applies it on the perforated tip of a canula, of which he gives an illustration. There are a dozen or more openings in the tip of the canula, the other end of which swells to form a sphere just before it is attached to a rubber tube and bulb. The flap is placed on the tip of the canula and the latter is then introduced into the ear, and when the flap is over the proper location it is blown on it by pressure on the bulb. The ear is then packed with small cotton wads, avoiding pressure on the flaps. He describes the technic in detail, and states that it has been followed in 12 cases to date in his clinic. In 5 cases healing was perfect. In 5 others partially so, and the 2 others were failures at first, but one healed after a second transplantation.

85. **Permanent Alterations in the Skin After Roentgen Radiation.**—Freund and Oppenheim describe the disagreeable after-effects of *x*-ray treatment as observed in certain cases. They give illustrations of the histologic findings in one case of pronounced telangiectasia, and proclaim that these troubles are unmistakably the result of the disturbances in the circulation induced by the exposures. It is particularly liable to occur when the action of the rays is most intense in the upper layers of the skin. The existing capillaries of the upper network of capillary vessels become dilated, and pre-existing cutaneous affections in which there is already a tendency to this dilatation of the vessels afford a predisposition to telangiectasia later which must never be forgotten. Besides telangiectasia the *x*-rays are liable to induce atrophy of the skin and an alteration in the skin suggesting scleroderma. The findings in each form are described. In the telangiectasia they simulate those of commencing xeroderma pigmentosum. The torpid character of the Röntgen ray dermatides is due to the chronic stagnation in the vessels of the cutaneous region exposed. The ulcers developing on account of the necrobiosis of the tissues display the same torpid character and lack of tendency to heal which distinguish varicose ulcers in the leg. The conditions are practically the same in both these lesions. The effects observed indicate the necessity for using rays which affect the deeper tissues and do not exhaust their energy on the superficial layers.

Zeitschrift f. klinische Medizin.

Last indexed page 844.

87 (LI. Nos. 5-6.) Zur Frage der Glykolyse. A. Braunstein (Berlin).

88 *Untersuchungen über die Ruhr (dysentery). Jürgens (Berlin).

89 *Versuch zur Lösung des Glykogen-Problems. A. Wolff (Senator's clinic, Berlin).

90 Ueber Lipämie. E. Neisser and L. Derlin.

91 Ueber Quecksilber-Exantheme und Quecksilber Idiosynkrasie. E. Tomasczewski (Breslau). See editorial page 713.

92 Elimination in Diabetes Under Influence of Food. W. v. Moraczewski (Lemberg).—Ueber Ausscheidung von Oxalsäure, Indikan und Azeton bei Diabetes unter dem Einfluss der Nahrung.

93 Albuminoids in Urine. A. Calvo (Würzburg).—Ueber die Eiweisskörper des Urins bei Nierenkranken und Gesunden, mit bes. Berücksichtigung des durch Essigsäure fällbaren Eiweisskörpers.

94 Glykogen-Reaktion der Leukozyten. L. Hofbauer.

95 (LII, Nos. 1-2.) *Zur Lehre von der paroxysmalen Kälte-Hemoglobinurie. J. Donath.

96 *Zur Aetiologie und Pathogenese des Abdominal-Typhus. Jürgens (Berlin).

97 *Elimination of Dissolved Albuminoids in Feces as Sign of Functional Disturbance in Intestines. A. Albu and A. Calvo. —Ueber die Ausscheidung von gelösten Eiweisskörpern in den Fäces und ihre Verwerthung zur Erkennung von Functionsstörungen des Darms.

98 *Value of Olive Oil in Affections of Stomach and Duodenum. P. Cohnheim.—Weitere Mittellungen über die Heilwirkung grosser Dosen von Olivenöl bei Erkrankungen des Magens und des Duodenums, Ulcus, Hyperchlorhydrie, spastischen und organischen Pylorus-Stenosen und deren Folgezuständen (Gastrektasie).

99 Cancer Research. G. L. Mamlock (Berlin).—Krebsforschung im Zeitalter der Aufklärung.

88. **Dysentery.**—Jürgens expatiates on the occurrence of latent symptomless cases of typhoid and dysentery as the connecting links between epidemics. He also comments on the unknown factors which induce epidemics. The bacilli alone are not sufficient. The locality seems to exert a marked influence. His experience with infected troops changing from garrison to garrison confirms this.

89. **The Glycogen Problem.**—Wolff comments on the varying solubility of the glycogen of normal leucocytes in health and disease and in different species. He further states that the idea that glycogen in the leucocytes indicates a degenerative process is incorrect. It was based on imperfect technic. On the other hand, later researches have shown that a lesser water-solubility of the glycogen in the leucocytes indicates a degenerative process.

95. **Paroxysmal Hemoglobinuria.**—The origin of the hemoglobinuria in the 3 cases described was not from the direct action of cold on the red corpuscles, nor from a purely mechanical injury to these corpuscles, but seemed to be due to a hemolytic action of the blood plasm. This hemolysis is probably the result of the action of the serum hemolysins.

96. **Typhoid Fever.**—Jürgens reiterates that the presence of the typhoid bacilli is far from being synonymous with the disease. In the efforts to carry out Koch's method of isolating typhoid patients, all the persons in the family were examined for typhoid bacilli, regardless of whether they were sick or well. This revealed a number of slight, atypical cases of typhoid and also disclosed the presence of the bacilli in certain absolutely healthy subjects. The bacilli in the milder cases were sometimes far more virulent than in the severe ones. The resistance of the individual is evidently the determining factor. The disease process is identical for all, but differs in its degree. Other points in Jürgen's communications were reviewed in an editorial on page 959.

97. **Albumin in Feces as Sign of Functional Disturbance.**—Dissolved albumin was always found in the feces of healthy nurslings, but only rarely in healthy older children, but always in both in case of an intestinal affection. In adults it was found only in a certain proportion of the cases of severe intestinal affections.

98. **Value of Olive Oil in Gastrointestinal Diseases.**—Cohnheim's article was reviewed in an editorial on page 895. In addition to the points therein noted may be mentioned his recommendation of an emulsion of almond oil in case there is repugnance to the olive oil. It answers the same threefold purpose with the exception that it is less nourishing. He has found the olive oil effectual in relieving and curing gastrectasia not due to an organic obstacle, and even in organic and relative stenosis it proves a valuable lubricant. In such cases he orders a wineglassful—two tablespoonfuls—half an hour to an hour before meals, two or three times a day. It has no by-effects, and has frequently rendered a contemplated operation unnecessary. It prevents impending gastrectasia and wards off recurrences. He gives the particulars of 35 chronic cases treated with the oil. A further advantage is that it serves to differentiate purely nervous or hysteric gastric affections, as they are not benefited in the slightest by the oil, in marked contrast to other affections of the stomach and duodenum.

Books Received.

Acknowledgment of all books received will be made in this column, and this will be deemed by us a full equivalent to those sending them. A selection from these volumes will be made for review, as dictated by their merits, or in the interests of our readers.

MANUAL OF CLINICAL MICROSCOPY AND CHEMISTRY, Prepared for the Use of Students and Practitioners of Medicine. By Dr. Hermann Lenhartz, Professor of Medicine and Director of Hospital at Hamburg, etc. Authorized Translation from the Fourth and Last German Edition, with Notes and Additions, by Henry T. Brooks, M.D., Professor of Histology and Pathology at the New York Post-Graduate Medical School and Hospital. With 148 Illustrations in the Text and 9 Colored Plates. Pp. xxxii-412. Cloth. Price, $3.00 net. Philadelphia: F. A. Davis Company.

SONGS OF ALL THE COLLEGES, INCLUDING MANY NEW SONGS. Compiled and Arranged by David D. Chamberlain (Harvard) and Karl P. Harrington (Wesleyan). Cloth. Pp. 330. Price, $1.50 postpaid. New York: Hinds & Noble.

TRANSACTIONS OF THE AMERICAN CLIMATOLOGICAL ASSOCIATION. For the Year 1903. Vol. XIX. Cloth. Pp. 267. Philadelphia: Printed for the Association. 1903.

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Original Articles.

CESAREAN SECTION FOR PLACENTA PREVIA.

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Resort to cesarean section as a means of delivery for a patient with placenta previa is still a sufficiently rare procedure to make the history and result of every case a matter of general interest.

For conservative cesarean section for other conditions the mortality for the mother is about 10 per cent., and that for the fetus from 5 to 10 per cent. The mortality for the mother with placenta previa, treated by means other than cesarean section, is about 11 per cent., while the fetal mortality is from 45 to 50 per cent. Gillette[1] collected 216 cases of placenta previa, of which 34 mothers and 96 fetuses died, being 15.3 per cent. and 44.3 per cent., respectively. Schauta[2] reported from his clinic 234 cases, 16 mothers (6.8 per cent.) and 127 fetuses (54.3 per cent.) perishing.

The conservative methods of packing the vagina with gauze or with the dying infant's body, have been fairly successful in averting death from the mother, by compressing the bleeding placental site. The method of rapid extraction after forcible dilatation of the os, where this is required, places the mother in greater jeopardy, but increases the chances of delivering a living child. It is, therefore, on simply *a priori* grounds, to be assumed that a resort to cesarean section would greatly lessen the mortality of the fetus, while not materially increasing the danger of the mother.

Against this reasoning is argued, first, that the mother's life is of much more consequence than is that of the unborn infant. A weighty objection to this is the fact that neither the surgeon nor the accoucheur is a legal executioner, even were he competent to judge between the intrinsic value of the two lives, each of which is equally under his care. Secondly, it is said that the infant whose placenta is previa, is almost of necessity premature at the time of delivery, and is, therefore, very apt indeed to die in a very short time. Again, it may be rejoined that it is neither ethical nor safe for the attendant to act on the principle that his patient will die soon under any form of treatment, and that, therefore, it is little matter what that treatment may be, for it is the bounden duty of every physician to do what he thinks is for his patients' best interests, irrespective of other considerations. Moreover, while the mortality of premature infants in general is about 22 per cent., as calculated by Ford,[3] that of infants in cases of placenta previa treated by rapid extraction is about 55 per cent., and with slow extraction (practically allowing the fetus to die during delivery) this figure rises to 67 or even 83 per cent. "The methods of treatment in placenta previa, therefore," adds Dr. Ford, "are clearly responsible for the loss of 45 per cent. to 61.4 per cent. of the children," and although the prospects from conservative delivery may have brightened somewhat within the past decade, yet it still seems probable that the fetal mortality is in this affection disproportionately high.[4]

The danger to the mother in placenta previa is chiefly from hemorrhage, and this hemorrhage, it is to be recollected, is due to premature detachment of the placenta from the lower uterine segment, opening up the uterine sinuses, so that the blood which should pass into the placenta, and so on to the fetus, rushes forth through the dilating os. The fetus meanwhile is becoming asphyxiated. A remedy for the former condition can not be found until the uterus is allowed to contract, and this can not take place until the child is removed, and only by the removal of the child can its asphyxiation be prevented; hence, removal of the child is the first indication. To secure this *per vias naturales* it is necessary, first, to increase the bleeding by separating the placenta sufficiently to allow the introduction of the obstetrician's hand for the performance of version; and while these manipulations are taking place, and the mother is bleeding more profusely than ever, the child is smothering within the womb.

It becomes, therefore, a question demanding the highest judgment to determine whether the mother will endure the added hemorrhage, and whether the fetus will survive the period of asphyxiation, momentary though it be.

In primipara, and in multipara whose os is rigid and undilated (a condition not so rare in placenta previa as has been supposed by some authors), rapid obstetric delivery is no easy task, and the lacerations of the maternal soft parts and the shock to both mother and child may be considerably more than would be entailed in a cesarean section. In other cases, where the os was already dilated, or was soft and easily dilatable, and where the parturient canal was roomy, version and rapid extraction would no doubt offer equally good chances of success.

If labor had already lasted some time, and there was probability of uterine infection, I am not sure whether a Porro-cesarean section might not give the best ultimate results; but the general opinion of the profession appears to be that in infected cases cesarean section is to be avoided.

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[1] The Journal A. M. A., Aug. 24, 1901.

[2] Interstate Med. Jour., St. Louis, April 1, 1902.

[3] Amer. Gyn. Jour., 1892, ii, 525.

[4] Higgins, in the Boston Med. and Surg. Jour., 1902, i, 6, states that at the Paris Maternity the mortality for premature infants is over 70 per cent., and that at the New York Nursery and Child's Hospital it is 60 per cent. These figures seem scarcely compatible with his other statements to the effect that the fetal mortality in placenta previa is from 50 to 60 per cent. only, while at the same time 62 per cent. of such infants are premature.

If no evidences of fetal life exist, it would, of course, be mere folly to perform cesarean section, since craniotomy or embryotomy would offer a perfectly satisfactory solution of the difficulty in cases where normal delivery proved impossible. On the other hand, if the mother were evidently moribund, a rapid cesarean section should by all means be preferred, if the fetus was still living and viable.

In a private house, where, in case of emergency, the attendant has no skilled assistance, and is unable to have his patient immediately removed to a hospital, it is my opinion that version and extraction would be the better treatment. If the case were not urgent, an efficient vaginal tamponade should secure time enough for preparation for cesarean section; but it is a rule that may well be called golden for the surgeon not to leave his patient's side; once labor has commenced, until she has been delivered. At any moment a torrential hemorrhage may occur, and the mother die like a flash.

In the recent literature a great number of articles may be found,[5] whose writers support one or the other side of this question, and which the reader who desires a fuller exposition of the subject will do well to consult.

The case which I report was referred to me by my friend, Dr. Charles E. Bricker, after consultation with whom I selected cesarean section as the lesser of the two evils, and as an operation with whose technic I was more familiar, and, therefore, one with which I was more likely to have success than with podalic version under such unfavorable circumstances.

History.—Mrs. W., aged 41. Family history negative. Always enjoyed good health. Digestion good, bowels constipated. Married 21 years, four children living and well, one miscarriage five years ago. Patient has always had difficult forceps labors.

Last menstrual flow May 29, 1903. Dec. 20, 1903, she had a severe hemorrhage and was obliged to go to bed, since which time she had felt weak and would become very tired on slight exertion.

Thirty-six hours before admission, morning of Feb. 6, 1904, to a private room at the German Hospital, the patient had a very severe hemorrhage and the vagina was packed with cotton by Dr. Bricker.

Examination.—On admission patient is very well nourished, heavy, fatty abdominal walls, abdomen very large, patient is restless, pulse rapid and thready, mucous membranes pale. Fetal heart sound can be heard on the right side near the umbilicus. Vaginal examination shows the os to be dilated to the size of a silver half dollar and filled by a soft mass. Diagnosis: Placenta previa centralis.

Operation.—Feb. 6, 1904. Incision through the right rectus muscle, peritoneum opened, enlarged uterus was delivered through the incision and intestines protected with gauze pads.

A longitudinal incision was made into the uterus, the bag of waters protruded and was ruptured, child delivered carefully, laid on right side, cord ligated. The placenta, which was attached directly over and around the internal os, was carefully separated and the uterus contracted satisfactorily. The uterus was sutured with two rows of silk. Abdominal wound closed by tier suture. The wound healed by first intention and the patient was discharged entirely well, Feb. 21, 1904. The baby is well and healthy.

What determined Dr. Bricker and myself to do cesarean section in preference to delivery by the natural way was: Previous deliveries by forceps, all of which were difficult, in addition to forced dilatation, version and perhaps forceps again; the risk to the child's life; danger to the mother, both from hemorrhage and injury to maternal parts; and in favor of delivery by abdominal section, the much less risk to the mother and being practically certain of saving the child, labor being but a few days of full term.

The results of cesarean section for placenta previa, so far as hitherto reported, are not very encouraging. They show a considerably increased mortality for the mother, and a not materially decreased death-rate for the fetus, as compared with those of the older methods. It has been possible to collect in all 25 cases where this method of treatment has been employed, in one of which, however, the results have not been determined (Storer's case, No. 22). Of the remaining 24 cases, 19 mothers and 8 children recovered, a mortality, respectively, of 20.8 and 66.6 per cent., including as a recovery the child in Tait's case, it having lived for one month and dying then from bronchitis. If we exclude the cases (Nos. 2, 14, 17, 19, 20, 21, 25) where the operation was undertaken before the fetus was viable, and those where it is known to have been dead before operation was commenced, the fetal mortality falls to 50 per cent., showing that in reality cesarean section will save more viable fetuses than can be saved by delivery *per vias naturales;* whereas, for the mother, the mortality in these cases is only 18.75 per cent., as against 20.8 per cent. in the whole series, and 28.5 per cent. where the operation was done before the fetus was viable or when it was already dead, showing that the earlier stage of pregnancy is more unfavorable for the mother.

If we now consider only those cases (Nos. 1, 3, 4, 5, 6, 7, 8, 9, 10, 11, 13, 14, 16, 18, 23, 24), sixteen in number, where delivery by cesarean section was a method of choice, not of necessity, as in the remaining cases (Nos. 2, 12, 15, 17, 19, 20, 21, 25), the fetal mortality is 56.2 per cent., and that for the mother 18.75 per cent., as against 87.5 per cent., fetal, and 25 per cent. maternal, where delivery by natural method was impossible. But in this last series—where cesarean section was imperative—of seven fetuses so delivered, no less than six were already dead or not viable, only one in the series recovering, thus making the improved fetal mortality 50 per cent.

In view, therefore, of these figures, it is evident that cesarean section is not a method to be unreservedly recommended in placenta previa, but that it should be confined, where a choice between it and obstetric delivery is possible, to those patients whose cervix is with difficulty dilatable, whose birth canal is rather contracted, where immediate extraction of the fetus is necessary, and where further hemorrhage would almost certainly kill either mother or child, or both.

CASES OF CESAREAN SECTION FOR PLACENTA PREVIA

1. Bernays: The Journal A. M. A., May 12, 1894. For placenta previa. Mother recovered. Child died in ten hours.

2. Bossi: See De Paoli: La Rassegna d'Ostetricia e Ginecologia, 1899, viii, No. 3, p. 155; quoted by Mattoli: Archivio Italiano di Ginecologia, 1899, ii, 309. For rupture of uterus with placenta previa. Mother died in twelve hours. Fetus dead when extracted.

3. Braun-Fernwald: Archiv. f. Gyn., 1899, lix, No. 2, p. 320. Porro, for placenta previa with uterine myomata. Mother recovered. Child died in three days.

4. Braun-Fernwald: Ibid. Porro, for sepsis with placenta previa. Mother recovered. Child died of atelectasis pulmonum.

5. Conroy: Bost. Med. and Surg. Jour., 1902, cxlvi, 634. For placenta previa. Mother recovered. Child dead when extracted.

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[5] Among those who favor cesarean section in these cases are the following: Ford (Amer. Gynecol. Jour., 1892, ii, 525), Dudley (N. Y. Med. Jour., 1900, ii, 754), Boyd (Proc. Phila. Co. Med. Soc., 1901, iii, 117), and Donoghue (The Journal A. M. A., 1902, ii, 620); while articles opposing this method have been written by Ehrenfest (Amer. Med., 1902, i, 64), Schauta (Interstate Med. Jour., St. Louis, 1902, ix, 177), Murray (Amer. Med., 1902, i, 945), De Paoli (Archiv f. Gyn., 1903, ix, 15), and Higgins (Boston Med. and Surg. Jour., 1902, i, 6).

6. Covington: Cincinnati Lancet-Clinic, 1901, i, 558. For placenta previa. Mother recovered. Child recovered.

7. Deaver: (Case here reported.) For placenta previa. Mother recovered. Child recovered.

8. Donoghue: Bost. Med. and Surg. Jour., 1900, ii, 571. For placenta previa. Mother recovered. Child recovered.

9. Donoghue: Ibid., 1902, i, 18. For placenta previa. Mother died after an operation for intestinal obstruction on fourth day after the cesarean section. Child recovered.

10. Gillette: Ibid., 1901, ii, 9. Porro, for placenta previa. Mother recovered. Child recovered.

11. Hare: Ibid., 1901, i, 151. For placenta previa. Mother died in eleven hours. Child died in thirteen days of inanition.

12. Hopkinson: Amer. Med., 1902, i, 140. For contracted pelvis, with lateral placenta previa. Mother recovered. Child recovered.

13. Hypes and Hulbert: See Bernays, loc. cit. For placenta previa. Mother died. Child died.

14. Lanphear: Amer. Jour. of Surg. and Gyn., 1901, xiv, 132. Porro, at end of fourth month for infected placenta previa. Mother recovered. Fetus not viable.

15. Lodemann: Centralbl. f. Gyn., 1893, xvii, 564. For placenta previa with osteomalacic pelvis. Mother recovered. Child died.

16. MacCalla: Medical Sentinel, 1900, viii, 55. Porro, for placenta previa. Mother recovered. Child lived one week.

17. Mattoli: Archivio Italiano di Ostet. e Gin., 1899, No. 4, p. 305. For placenta previa, with undilatable cervix. Mother recovered. Child dead before extraction.

18. Omboni: See Stradiotti: L'Arte Ostetrica, 1902, xvi, 258. For placenta previa. Mother recovered. Child living when extracted; no subsequent history.

19. Pasquali: Atti della Soc. Italian. d'Ostet. e Gin., 1895, ii, 299. For contracted pelvis with placenta previa. Mother recovered. Child not viable.

20. Pasquali: Ibid., loc cit. For contracted pelvis with placenta previa. Mother recovered. Child not viable.

21. Sligh: Amer. Jour. of Obstetrics, February, 1892. For carcinoma of cervix with placenta previa. Mother died day of operation. Child dead when extracted.

22. Storer: Quoted by Mattoli, loc. cit. Porro, for "grave hemorrhage in pregnancy." Stump of uterus treated extraperitoneally, according to the original procedure of Porro. No history of mother and child given.

23. Tait: Lancet, 1899, i, 364. Porro, for placenta previa. Mother recovered. Child died in one month of bronchitis.

24. Truesdale: Boston Med. and Surg. Jour., April, 1903. For placenta previa. Mother recovered. Child died.

25. Webster: Amer. Jour. of Obst., 1901, xliii, 158. For placenta previa, in a mother of 13 years of age. Mother recovered. Child dead (?) when extracted.

SURGICAL OBSERVATIONS IN THE PHILIPPINES.*

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MANILA, P. I.

Having for the past twelve months been closely associated with the surgical work at the First Reserve Hospital in the City of Manila, it has occurred to me that it might be of interest to the members of the Manila Medical Society should the results of this year's experience in surgery be presented to them, covering, as it does, a wide range of surgical conditions. Moreover, I am induced to select the above as the title of my paper by reason of the erroneous views prevailing in certain quarters, both in this archipelago and in the United States, as to the results of surgical work in the Philippine Islands. I shall first give a tabulated list of the various operations performed by the surgeons on duty at the First Reserve Hospital since Jan. 1, 1903, and then adduce certain conclusions, which would seem justified by the results. The operations enumerated below were performed by First Lieutenants W. L. Keller, assistant surgeon, U. S. A., E. L. Ruffner, assistant surgeon, U. S. A., Capt. H. R. Stiles, assistant surgeon, U. S. A., and myself. In the general list of operations the names of the responsible operators are given:

Operations.	Cases.	Operators.	Died.
Bassini operation for the radical cure of inguinal hernia.	59	Keller 22, Ruffner 4, Banister 33.	0
Radical cure for ventral hernia..	3	Banister	1
Operation for appendicitis......	30	Keller 12, Ruffner 1, Banister 17.	1
Laparotomy for perforating gunshot wounds of the abdomen.	3	Banister	2
Laparotomy for sarcoma of small intestine—extensive.	1	Keller	1
Laparotomy for rupture of intestine from blow on abdomen.	1	Keller	1
Laparotomy for acute intestinal obstruction	1	Keller	1
Laparotomy-exploratory	3	Banister	0
Radical operation for varicocele suprapubic incision.	49	Keller 31, Ruffner 10, Banister 8.	0
Large abscess, mammary region—incision and drainage.	1	Keller	0
Large lumbar abscess—incision and drainage.	1	Keller	0
Large abscess abdominal wall—deep incision and drainage.	3	Ruffner 2, Banister 1.	0
Abscess of liver. Operation for..	7	Keller 4, Banister 3.	2
Abscess—ischiorectal	1	Ruffner	0
Sebaceous cyst of back—large excision.	1	Keller	0
Sebaceous cyst of arm—large, extending beneath biceps muscle, excision.	1	Ruffner	0
Lipoma of forearm. Excision...	1	Ruffner	0
Large cyst of neck, deep. Excision.	1	Keller	0
Sarcoma of neck, deep. Excision.	1	Keller	0
Bunions, radical operation; resection of joints involved.	10	Keller 6, Ruffner 2, Banister 2	0
Amputation of fingers and toes...	8	Keller 2, Ruffner 6.	0
Circumcision	5	Keller 2, Ruffner 3.	0
Removal of lupus of face and nose—extensive.	1	Keller	0
Resection of rib for empyema....	3	Keller 2, Banister 1.	0
Resection of rib for necrosis....	1	Keller	0
Resection of sixth costal cartilage for post-typhoidal necrosis.	1	Banister	0
Extensive and deep streptococcic infection of lip and face—cautery.	1	Keller	1
Cellulitis—multiple incision.....	1	Keller	0
Adenitis, inguinal—excision and curetting.	4	Keller 2, Ruffner 2.	0
Amputation of penis and scrotum, with castration, for epithelioma.	1	Keller	0
Epithelioma of cheek with induration of glands of neck—excision of tumor and glands.	1	Banister	0
Epithelioma of tip of tongue—excision of anterior half of tongue.	1	Banister	0
Excision of tumor of neck.......	1	Keller	0
Varicosed veins of leg—ligation and excision.	5	Keller 3, Banister 2.	0
Gunshot wound of femur—old, with necrosis of both condyles. Bullet removed from external condyle. Necrosed bone removed.	1	Keller	0
Gunshot wound of femur—old. Bone perforated by bullet just below trochanter major. Necrosis with prolonged suppuration.	1	Ruffner	0
Gunshot wound of forearm. Bullet located by *x* ray and removed.	1	Keller	0
Plastic operation for extensive laceration of penis and scrotum.	1	Keller, ...	0
Acute suppurative arthritis—knee. Multiple incision and drainage.	2	Keller 1, Banister 1.	0
Tendo-plastic operation for contracted tendo-Achillis. Tendon lengthened 3 inches with recovery of function.	1	Banister	0
Suppuration of knee joint from the presence of necrotic bone fragments resulting from extensive comminution of the patella.	1	Banister	0
Traumatic arteriovenous aneurism of external carotid artery and internal jugular vein. Ligation.	1	Banister	1
External perineal urethrotomy with a guide.	1	Banister	0
External perineal urethrotomy without a guide.	2	Banister	0
Laminectomy for fracture of spine with paraplegia.	1	Banister	0
Severe gunshot fracture of femur and humerus—patient moribund	1	Banister	1
Extensive necrosis of femur from contusion. Necrosed bone removed.	1	Banister	0
Resection of first metacarpophalangeal joint for old dislocation of thumb with anchylosis.	1	Banister	0
Necrosis of os calcis—removal of diseased bone.	1	Ruffner	0
Hernia of adductor longus muscle of thigh from rupture of fascia lata. Operation for repair of fascia lata.	1	Banister	0
Carbuncle, large, dorsal region—complete excision.	1	Ruffner	0

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* Read before the Manila Medical Society, Manila, P. I., Feb. 1, 1904.

Operations.	Cases.	Operators.	Died.
Removal of piece of glass 5x1½ inches from forearm where it had remained for three years.	1	Ruffner	0
Operation on rectum and anus...	57	Keller 38, Ruffner 19.	0
Hydrocele — excision of tunica vaginalis with drainage.	10	Keller 5, Banister 5.	0
Wiring of clavicle for comminuted fracture.	2	Keller 1, Banister 1.	0 0
Wiring of fractured patella......	2	Banister	0
Wiring of tibia for compound fracture.	2	Keller (one of these operations was performed outside of First Reserve Hospital.)	0
Trephining for cranial injuries...	4	Keller 2, Banister 2.	1
Enucleation of eyeball.........	4	Stiles 1, Banister 3.	0
Strabismus operations..........	7	Stiles 1. Banister 6.	0
Extraction of senile cataract....	2	Stiles 1, Banister 1.	0
Removal of pterygium by excision.	30	Stiles 25, Ruffner 2, Banister 3.	0
Suppurative mastoiditis. Radical operation.	2	Banister	0
Ectropion—operation for by Adam's method.	1	Banister	0
Operations on corneal ulcer by actual cautery and curetting.	23	Stiles	0
Excision of cyst of eye lid......	1	Stiles	0
Paracentesis of membrana tympani.	9	Stiles S, Banister 1.	1
Removal of aural polypi........	10	Stiles	0
Removal of exostosis of external meatus.	2	Stiles	0
Actual cautery for turbinate hypertrophy.	16	Stiles	0
Incision of abscess of epiglottis..	1	Stiles	0
Removal of foreign body from larynx.	1	Stiles	0
Removal of papilloma from larynx.	1	Stiles	0
Removal of adenoids...........	5	Stiles	0
Removal of nasal polypi........	4	Stiles	0
Total	428		13

GENERAL ANALYSIS.

In this list of 428 operations, such so-called operations as the opening of small abscesses, the removal of ingrowing toe nails and other surgical measures of similar slight importance have been carefully eliminated, although frequently included in the statistical tables of many hospitals. In scanning the list it can readily be seen that, of the 428 operations recorded, 145 may justly be ranked as capital. In this list may be noted 59 operations for the radical cure of inguinal hernia; 3 for ventral hernia; 30 for appendicitis; 9 other laparotomies, 3 being for perforating gunshot wounds of the abdomen; 7 operations for abscess of the liver, 5 being by the abdominal route; 3 external perineal urethrotomies, 1 with and 2 without a guide; 4 trephine operations for cranial injuries or their effects; 2 radical operations for suppurative mastoiditis; 1 excision of the anterior half of the tongue for malignant disease, and many other important operations. Of these operations 106 involved invasion of the peritoneal cavity.

In this list of capital operations there was a mortality of 12. One other patient in the general list died from septicemia, due to serious streptococcic infection of the deep tissues of the lip and face. The operation in this case was the use of the thermo-cautery, which can not be considered a capital operation, and hence has not been placed in such list. Of these 145 capital operations, 87 were performed by the writer, with a mortality of 6. Of the 6 fatal cases, four patients were moribund when placed on the operating table just after reaching the hospital, and a fifth, a patient suffering from a traumatic arteriovenous aneurism of the external carotid artery and internal jugular vein, which had become diffuse, was in momentary danger of death from hemorrhage, and the operation of ligation was attempted as affording a forlorn hope of saving life. In this connection, I shall state that since I have been connected with the First Reserve Hospital it has been the rule to operate on desperate cases, as soon as brought to the hospital, in order that such patients might be given their one chance of life. By following this rule I was able to save the life of one out of three patients brought to the hospital during the year suffering with perforating gunshot wounds of the abdomen. In this case the descending colon was wounded, and if the expectant plan had been followed this patient would, in my opinion, have died.

This man was brought before this society a few months ago, when a brief outline of his case was given. The sixth case of mortality, in my personal capital operations, resulted from acute tetanus, following what I considered, in every way, a most satisfactory operation for ventral hernia. A complete and exhaustive bacteriologic investigation as to the source of the infection in this case was immediately instituted by my order, the laboratory work being performed by Assistant Surgeon H. M. Smith, the bacteriologist and pathologist of the hospital. Everything connected with our technic was discovered to be blameless. True cultures of tetanus bacilli were, however, obtained from the scrapings of the floor of the operating room, the tetanus spores having presumably gained access to the wound by means of dust blown in from the street about forty yards in front of the hospital. It must be understood that the tiled floor of the operating room had been habitually subjected to scrubbing with a strong solution of carbolic acid.

Anaërobic cultures obtained from the floor of the operating room, as mentioned, produced tetanus when injected into rats. Since the occurrence of this lamentable accident the windows of the operating room on the side facing the street have been kept closed, or covered with wet sheets, during operations. Furthermore, as additional precautions against the possibility of harboring or of introducing tetanus spores by means of dust the operating room is scrubbed out with strong solution of carbolic acid just before each operation, clean sheets are spread around the operating table, and no one is permitted to enter the operating room in shoes which have been worn outside. Slippers, which have never been used outside of the operating rooms, are kept in the surgeon's dressing room for the use of the surgeon and assistants or others entering the operating room. We have had no other trouble on the score of infection from tetanus.

Thus in the six cases of mortality in my 87 capital operations, five were from their very nature doomed in advance, and were subjected to operation simply as giving the unfortunate patients a last chance. The tetanus case is the only one in which the fatal result can, in any way, be attributed to the operation. The most of the remaining 58 capital operations were performed by First Lieutenant W. L. Keller, assistant surgeon, U. S. Army, and the remainder by his successor, First Lieutenant E. L. Ruffner, assistant surgeon, U. S. Army. In all important operations performed by my assistants, I almost invariably act as first assistant, and hence am perfectly familiar with all surgical results in the hospital. In this series of 58 capital operations performed by my surgical assistants, six deaths resulted, the fatal cases being as follows: (1) One case of malignant appendicitis in an officer, whose family opposed operation until a successful result was impossible in consequence of gangrene of the intestine. This operation was performed by Dr. Keller just prior to my arrival at the First Reserve Hospital. (2) One case of sarcoma of the small intestine so extensive as to preclude any attempt at removal, so that the operation simply amounted to a laparotomy with inspection of the growth. (3) A case of septic peritonitis due to a traumatic rupture of the small intestine, in which a laparotomy was performed in accordance with our established rule. (4) One case of acute intestinal obstruction from bands of adhesions, the intestine being extensively gangrenous and the case hopeless, the operation consisting in a laparotomy with relief of the constriction. (5) Two cases of hepatic abscess with multiple and extensive abscesses throughout the liver.

As can be seen these six cases, as five of my six, were doomed from the first, and were hopeless when subjected to operation in accordance with our rule to let no man die without making an effort to save him. In considering this mortality rate of twelve deaths in 145 capital operations, our percentage would be, considering the results in hopeless cases as being chargeable to the operation, 8.2 per cent. Taking the whole number of operations given in the general list, amounting to 428, the mortality of 13 would give our death rate as 3.03 per cent.

THE POSSIBILITY OF ASEPSIS.

Before coming to the Philippines I had heard a great deal of talk in the United States about the poor surgical results to be expected in these islands owing to climatic conditions, lack of proper sanitation, and many other factors, under whose saturnine influences the various pathogenic bacteria, most to be dreaded in surgery, would flourish and infect, infect and flourish, at their own sweet wills, while the poor surgeon could only stand by helplessly wringing his impotent hands, and bemoaning his fate at being thus compelled to practice his art in such fatal surroundings. In fact, such statements have not solely emanated from the United States, for a good deal of comment of the same tenor has been and is still heard in the Philippines. I feel that, from the number of cases of surgery which I have had an opportunity of observing in these islands, I am to some degree entitled to express an opinion on the subject, and I desire to say, without the slightest reservation, that, with proper aseptic and operative technic, just as good results may be expected to follow operative work here as in any country under the sun. When septic infection occurs in operation wounds in the Philippines, the fault must be looked for in the technic, not in the climate. Aseptic surgery in the Philippines may be expected to have the same results as would follow the same technic in New York, Ohio, Kansas or California. This is absolutely true for pyogenic infection. The great prevalence of tetanus spores in the soil of the Philippines adds a possible element of danger, which would not be encountered in many portions of the United States. As proved by my fatal case of tetanus, spore bearing dust must be guarded against in our operative work in this part of the world.

As a proof of the correctness of the views just expressed, I shall state that at the First Reserve Hospital we have secured an almost continuous series of aseptic results. In our series of 59 hernia operations, during the past twelve months, we discovered only one small superficial stitch abscess, which was not worthy of the name of "abscess," but which was recorded as such, as we perferred to err on the safe side. In every one of our interval operations on account of former appendicitis, or of our appendicectomies performed during the acute stage before infection outside of the appendix had occurred, has first union resulted. The same can be said of all of our other clean cases, with three slight exceptions, and the only instances of pyogenic infection occurring in such cases at this hospital, since I have been connected with it, have been the following: (1) The small stitch abscess which occurred in the subcutaneous tissue in the hernia case, previously referred to. (2) Suppuration ensued in one operation performed on the knee joint on account of a serious injury, which had broken the patella into many fragments. (3) In an operation for the repair of the fascia lata, in the case of hernia of the adductor longus muscle, a slight superficial infection resulted. This was of no importance whatever, and occurred as a result of the slipping of the dressing and a consequent uncovering of the wound, while the patient was in bed soon after the operation. It seems to me that such aseptic results, which have been obtained in an old Spanish hospital building in the much-criticised Philippines, and which are not surpassed, as far as I have been able to learn, in any hospital in more favored climes, should forever set at rest all doubt regarding the proposition, which I have advanced, that clean results may be expected to follow clean methods here as constantly as in other portions of the world. So much for the dangers of septic infection.

RECUPERATION IN THE PHILIPPINES.

As far as recovery after operations is concerned, I desire to advance the broad proposition that surgical cases, subjected to operation, recuperate here in a most satisfactory manner. After serious operations there is here the usual slight aseptic rise of temperature, just as is the case in the United States or Europe, with a speedy fall to the normal. This applies especially to clean cases, but in pus cases, after thorough drainage has been established, we find the patients progressing toward recovery in the same manner that we have been accustomed to see in our best equipped and regulated hospitals at home. After such operations as those for the radical cure of hernia, for appendicitis or surgical measures of similar severity, our soldiers are able to return to their regiments in as reasonable a period of time as I have been accustomed to see in the United States in the same class of cases. As far as the permanency of the cure in such cases is concerned, I desire to state that I have not heard of a single case of relapse in the 59 cases of hernia subjected to operation since I have been connected with this hospital, and I only know of two cases of ventral hernia resulting from all the rest of our abdominal operations performed during the past year and resulting in recovery. These two cases of ventral hernia occurred in patients who had had large appendiceal abscesses, which had required drainage for a considerable time. Thus out of 106 cases, in which the peritoneal cavity has been invaded by the surgeons of the First Reserve Hospital during the past twelve months, only two cases of post-operative ventral hernia have resulted.

RESULTS IN APPENDICITIS.

In a paper entitled "The Modern Radical Operation for the Cure of Non-Strangulated Inguinal Hernia," read before this society some months since, I expressed fully my views on the subject of hernia, and the views then expressed relative to the value of this operation have simply been strengthened from further experience with it in the tropics.

With reference to appendicitis in the Philippines, a few notes may not be out of place. In the first place, apendicitis here is the same disease, with all its different forms and types and complications, that we have been accustomed to encounter at home, and in my Philippine experience I have not been able to observe any relation whatever between climatic conditions and the special type of the disease present in any case. For a time, after assuming my duties at the First Reserve Hospital, I was of the opinion that this disease was more prevalent here than in the United States, but on further observation, I have changed my views on this point. When it is borne in mind that the hospital mentioned is the large general military hospital for the Philippine archipelago, and that in it are treated almost all of the serious surgical cases that can be transported to this point from the entire military personnel in the islands, including officers, enlisted men, American employes of the various departments of the service, native scouts and native employes of the military establishment, it can well be appreciated that our series of 30 operations for appendicitis in the past twelve months is an infinitesimal ratio. Another point of interest in this connection is this, that all of our appendicitis patients, since I have been at this hospital, have been of the white race, and that no record can be discovered here of any native having been treated for this disease in past years.

In our list of 30 operations for appendicitis in the past twelve months, as before stated, there was one death from a most malignant attack with gangrene of the cecum, operation not having been permitted until too late. This occurred just before my arrival at the hospital, and consequently I did not personally observe the case, but since the patient was under the professional charge of First Lieutenant W. L. Keller, assistant surgeon, U. S. Army, one of the most careful, judicious and accomplished surgeons of my acquaintance, I feel sure that he received every attention, and that he was a doomed man before he was placed on the operating table. The 29 patients remaining recovered, although the great majority of them were in very serious conditions. This year's record for this dangerous disease, which shows that recovery resulted in every case in which operation was permitted when the surgeon had so advised, does not offer a very strong argument in favor of the deadly effects of this climate in serious surgical work. I have no more fears concerning the outcome of an operation for appendicitis here than I would have in a similar case in the United States, neither am I afraid to operate early in an acute attack. There is no more demand for delay in operation here than would be the case in any other country, and I must confess that all of my surgical tendencies are opposed to delay in appendicitis work. I consider appendicitis a strictly surgical condition, and see no logical reason for waiting for the formation of abscess, perforation with probable septic peritonitis, or gangrene of the appendix and cecum, with all that such conditions imply.

If our acute appendicitis cases do not speedily improve when admitted to the First Reserve Hospital as shown by a rapid decline of leucocytosis, and by an amelioration of general and local symptoms, the patient is subjected to operation without delay. This has always been my practice, and that it is not opposed to reason is evidenced by the fact that, in my limited experience as an operator for appendicitis, no case of mortality has resulted. I make this statement in no spirit of egotism, but as a simple declaration of fact.

A few days ago I removed an appendix during the early period of an acute attack of apendicitis, when, from the symptoms, it had become evident that the disease was steadily progressing. This appendix contained a number of fig seed, these little bodies being distributed from the apex along the entire length of the interior of the appendix. This is the first case in my own experience, in which the appendix was found to contain fruit seed of any kind. The advantage of the early operation in such a case can be readily appreciated.

In concluding these desultory remarks on appendicitis in these islands, I shall state that we take no account of the climate in our treatment of such cases at the First Reserve Hospital, but are guided here by the same considerations which would influence us in the United States, and confidently expect the same results that would obtain there.

HEPATIC ABSCESS.

Abscess of the liver is a great bugbear in the tropics, but at the First Reserve Hospital, with a very wide area of territory from which to draw our clinical material, we have only had six patients with this disease during the past twelve months. One patient was operated on twice; once under general anesthesia by aspiration in the attempt to locate the abscess, and the last time by the abdominal route with evacuation of the abscess. In this case aspiration utterly failed to show the presence of pus, although this procedure was most carefully performed through several different punctures. These six patients were subjected to operation: one by the thoracic route, after resection of a rib, and the remaining five by the abdominal route. A previous history of amebic dysentery was the rule in these cases. There were two deaths in these six cases, in both of which the abscesses were multiple and very extensive. In the four patients who recovered, the abscesses were single, though, as a rule, large. From my own observation, and from conversation with other surgeons relative to liver abscess in this climate, I have formed the opinion that with a patient not moribund, and with a single abscess to contend with, a careful operation, either by the thoracic or abdominal route, will afford a very favorable prognosis. In cases of multiple abscesses the prognosis is very gloomy, as patients so affected almost invariably die. Of these six patients suffering from hepatic abscess, two were natives. I am especially interested in the fact that two natives were victims of the disease, as I remember reading a short while since in one of the medical journals, published in the United States, that liver abscess was unknown among the natives of the Philippine Islands.

BONE SURGERY.

Bone surgery in the Philippines has results that can not be excelled in any part of the world, provided, of course, that a thorough aseptic technic is employed. In a case of comminuted fracture of the clavicle of a degree to render proper apposition impossible with the usual methods of treatment, or in a suspected fracture of the cranium with symptoms of cerebral compression, or in necrosis involving the bone in any portion of the body, I would not be induced to delay operation by any fears on the score of the climate. The results in such cases have been eminently satisfactory to the surgeons at the First Reserve Hospital. In cases of comminuted fracture of the clavicle of such a character as to preclude the possibility of recovery with useful shoulder under other treatment, I would operate at once, thoroughly exposing the fractured bone at the seat of the injury, placing the fragments in correct apposition under the guidance of vision, and holding them in such position by means of proper wiring with silver wire. I would do this in hope of securing a perfect result in spite of the climate, and all its supposed deleterious influences on surgical work. In fact, during the past year we have done this very thing in two serious cases of this type which were brought to the First Reserve Hospital. Dr. Keller was the responsible operator in one case and I in the other. Both patients made perfect recoveries with useful shoulders, my patient performing now his accustomed work as wheelwright in the employ of the quartermaster department in Manila. As a proof of how successful the operation of wiring the patella may be in this climate, I present for examination this evening a patient, on whom I performed this operation a short while since.

As noted in the preceding pages, I was called on to treat at the First Reserve Hospital, during the past year, three cases of perforating gunshot wound of the abdomen. In each of the three I performed a laparotomy after admission to the hospital. One patient, a soldier who had been accidentally shot by a comrade with a Krag rifle, was brought to the hospital moribund in about thirty minutes after the reception of the wound. The common and external and internal iliac veins of the right side were found to have been torn to pieces at their junction, and death occurred on the table as the result of the excessive hemorrhage so caused.

A second laparotomy for gunshot wound of the abdomen was performed in the case of a Filipino scout, who had been shot by ladrones early one morning about 3 o'clock, and who was brought to the hospital after 11 o'clock on the following night. At the operation I discovered that the small intestine had been so severely lacerated at one spot that it would be necessary to resect the bowel, and make an end-to-end anastomosis. This was done, the anastomosis being made with the Murphy button. The patient lived four days, and at the necropsy it was found that the intestine was gangrenous for about a foot on each side of the union. The anastomosis, however, had not yielded. This man might have been saved if he had reached the hospital soon after his injury was received.

The third case was brought to the operating room within two hours after being wounded with a 38-caliber revolver at close range. I opened the abdomen, found the wound in the bowel, which was the descending colon in this case, repaired the wound, cleaned out the peritoneal cavity, closed the abdomen, using a small cigarette drain of gauze covered with rubber tissue, and the patient made a rapid and uneventful recovery. The first two cases I considered to have been necessarily fatal cases, and the fatal issue in no wise attributable to the operation, while the third case, which made such a satisfactory recovery, would certainly have died without operation.

CONCLUSIONS.

It is not necessary to discuss all of the interesting cases or types of cases in the list of operations which I have given. Those cases with results, which I have specially brought forward, when considered in conjunction with the tabulated list, will, I trust, furnish sufficient evidence of the propriety of the views which I have expressed in the preceding pages on the subject of surgery in the Philippine Islands, which views I beg leave to present, in conclusion, in the form of the following propositions:

1. Aseptic results will just as surely follow aseptic methods in the Philippines as in the United States or in Europe.
2. Should septic infection occur in any clean case subjected to operation in the Philippines, blame the technic, not the climate.
3. Successful attainment of the object, for which operation has been undertaken, will follow careful and skillful surgery in the Philippines with the same regularity that we have been accustomed to observe in such work at home.
4. Convalescence after surgical operations in the Philippines is rapid and satisfactory, when such operations have been carefully and skillfully performed.
5. The danger of mortality after a skillfully performed surgical operation, in which all the details of a rigid aseptic technic have been carried out, is not increased by the influences of the climate of the Philippines unless the patient is, at the same time, the victim of some other serious disease.

A CLINICAL STUDY OF THE BACILLUS DYSENTERIÆ IN BOSTON AND VICINITY.*

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The assignment of Arthur I. Kendall by the Rockefeller Institute for Medical Research to work with us on the Boston Floating Hospital during the season of 1903, has enabled us to make a few scientific and clinical observations which may be of some value to the medical profession, and hence are reported. Not less important than the expert work of Kendall was the hearty co-operation of the Boston Board of Health, the facilities of whose large laboratory were placed at his disposal.

The *Bacillus dysenteriæ* was discovered by a Japanese physician named Shiga in 1898. It has many characteristics in common with the bacillus of typhoid fever, thus justifying bacteriologically the position that we have taken in favor of the use of the most careful "typhoid precautions" in these cases. It differs from the typhoid bacillus in various ways—for example, its motility and its action on mannite.

Cultures may be fed to animals without any outward effect, but when injected under the skin or into a vein a powerful toxin is developed. Flexner found the same bacillus in the Philippine Islands, and he and his assistants have since searched for and found it in many places in the United States.

This study has developed the existence of a group of these bacilli, differing from each other in some ways, but markedly similar in others. Temporarily these are divided into two classes styled "Shiga" and "Harris," respectively. Drying and sunlight quickly make them powerless, and the common disinfectant methods of typhoid fever are equally efficient, for they are found in the dejecta of patients. Moreover, agglutination tests similar to those employed in typhoid fever are successful. A drop or two of blood from a patient, diluted

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* Read before the Norfolk District Medical Society.

100 times, produces clumping of Shiga bacilli obtained from pure cultures within from two to four hours. Furthermore, it has been proved that a serum may be produced from horses in precisely the same way as diphtheria antitoxin is produced, which has marked powers to render guinea-pigs immune, and which it is, therefore, hoped may be produced powerful enough to check the ravages of the germs in the human system.

The Japanese use such a serum for bacterial dysentery, and have reduced the former mortality of over 50 per cent. to an average of only 10 per cent. or 15 per cent. The Rockefeller Institute for Medical Research, of which Dr. Simon Flexner, mentioned above, is the medical director, has set itself the task of determining whether this germ, so positively identified in the East, so readily detected by agglutination tests, and so amenable to serum treatment, is the same germ which every summer carries off thousands of infants under 2 years old. In this investigation it was our privilege to be one station, similar work being carried on by other assistants in Baltimore, Philadelphia and New York.

If further work shall make it probable that the *Bacillus dysenteriæ* (Shiga) is the cause of a large portion of our cases of summer diarrhea, a method of diagnosis analogous to the Widal test will be available to the diagnostician. Moreover, the identification of the cause in this case means the immediate use of a cure. Once firmly proved, therefore, a work in no sense secondary to the introduction of the antitoxin treatment of diphtheria will have been accomplished. Hence there was marked enthusiasm in this portion of our work this last summer.

Thirty-five cases were carefully studied, and in 28 the *Bacillus dysenteriæ* was demonstrated. Twenty-three were of the Harris variety, 3 of the Shiga, and 2 showed both varieties. Of the 5 cases pronounced negative, one, No. 20, seems like a case in which nature very vigorously attempted to rid the rectum of the invading germs, which were probably derived from a younger sister very ill with ileocolitis. The great amount of mucus concealed the germ cause. Case 26 was not a very severe one, and no clinical explanation for the failure to find the bacillus is available. Case 32 was very unsatisfactory clinically as well as bacteriologically, and much surprised her visiting physician by the suddenness of her death. Cases 33 and 35 were evidently meningitis. The local pathologic lesions of what we have termed clinically ileocolitis have in each case proven to be "much thickened intestinal walls, with prominent, injected, sometimes ulcerated, follicles and a coating of thick glairy mucus." It is possible to study these cases in very many ways. It is hoped that the grouping adopted may prove of interest and value. It is practically identical with that used in the report to the Rockefeller Institute.

PREVIOUS ATTACKS OF DIARRHEA.

The histories obtained were in many instances unreliable, owing to the lack of knowledge displayed by parents in regard to previous attacks of diarrhea. In only four cases was there a history of previous enteric disturbance. Of these, Cases 11, 12 and 15 gave histories of previous attacks, during the earlier summer. One case (18) had two previous attacks, one of ileocolitis the preceding year, and a second earlier in the season of 1903.

CHARACTER OF FOOD AT TIME OF ATTACK.

Of the cases proving positive, 2 were breast-fed exclusively (5 and 14); 5 cases were fed on condensed milk alone; ordinary table diet to 3; cow's milk diluted variously with water or cereal infusions, but without regard to accurate modification had been given to 7; proprietary food alone was given to 3; in combination with milk to 4; a restricted diet of bread, beef juice and milk had been given to 3; in 1 case the diet is not stated.

DISCOVERABLE CAUSE OF ATTACK.

As to a discoverable cause, no one cause can be assigned to any case except Case 14. In most of the cases the food of the children lacked even ordinary care in its method of preparation. The milk was the ordinary milk of the household, kept in many instances in the usual unhygienic surroundings. In no case had the food been sterilized before being given to the child. In one case, a breast-fed child, the onset seemed to be synchronous with the use of a breast pump.

LENGTH OF SYMPTOMS BEFORE OBSERVATION.

The average duration of symptoms before coming under observation was seven days. The longest period was six weeks, a diarrhea of the fermental type. The shortest period was one day, a fatal case of cholera infantum. In one case there is no history of duration given.

PERIOD UNDER OBSERVATION.

The average period of observation was eighteen and three-fourths days. The shortest periods were in three cases, each of which died on the day of entrance. The longest period of observation was sixty-three days (Case 27). The average age was 10 months, the youngest patient being 3 months and the oldest 4 years.

CHARACTER OF ATTACK.

Of the positive cases, 3 are noted as mild, 5 as of moderate severity and 20 as severe. Of the mild cases, 2 were discharged well, and 1, when entirely over the enteric trouble, finally developed symptoms of what was probably central pneumonia, from which she finally recovered. Of the moderately severe cases, 1 was discharged well, 2 were relieved; 1 complicated by tubercular adenitis and chronic otitis media was discharged unrelieved, and the remaining case developed lobar pneumonia, from which she died. Of the severe cases, there were 13 deaths, 5 recoveries and 2 unrelieved, both of the latter cases dying outside the hospital.

TYPE OF ORGANISM.

Of the 28 cases, 23 were infected by the Harris type of organism, 3 with the Shiga, and in 2 cases both were isolated. The small number of cases presenting the *Bacillus dysenteriæ* (Shiga) precludes much comparison. The 3 cases presented no marked difference from the rest of the cases. The 2 cases of double infection were both severe, but had no difference in symptoms from the other cases. Of these 2 cases, 1 died and 1 recovered. Of 3 cases of Shiga infection, 1 was moderate and recovered, 1 moderate and relieved, and 1 severe case died.

BREAST-FEEDING.

There were but two cases breast-fed at the time of entrance.

Case 5.—A boy, 11 months old, well developed and nourished, entered with a temperature of 104 F., delirious, furred tongue, mild diarrhea, 4 to 6 dejections per diem, green with mucus. On the heel of the left foot was a bleb surrounded by an erysipelatous process. Numerous abscesses of the leg developed later, were opened and evacuated. The *Staphylococcus pyogenes aureus* was isolated. There was final recovery.

As the enteric disturbance was never very annoying, and as a prolonged search of several hundred colonies revealed only one colony of the *Bacillus dysenteriæ* (Harris), the relationship as a causative factor is problematic.

Case 14 is interesting as to etiology. The mother stated that on account of a cracked nipple she had begun a week previously to the onset to use a breast pump, of which little care had been taken.

Case 14.—A boy, 10 months old, fairly well developed and nourished, somewhat hydrocephalic, slight rosary, no teeth, anterior fontanelle 1¾ x 1 in. Dejecta 8 to 10 a day, green mucus and occasionally streaked with blood, considerable tenesmus. Temperature 99 to 101 F. Child refused to nurse, dropper feeding was resisted so as to exhaust child, esophageal feeding was regurgitated. At times nasal feeding was retained. Vomiting was persistent, and toward the end vomitus contained blood in pinhead size clots. Day of death had two convulsions.

SUMMARY OF CASES.

Research Case Number.	Hospital Case Number.	Previous Attack, Diarrhea.*	Character of Food at Time of Onset.*	b'fore serva-n.	und'r orvn. n.	Mild;	Organism.	Diagnosis.	Termination.	Complication.	Age in Months.	Duration in Days.
1	13	No.	Eskay's Food; condensed milk.	4	12	Moderate.	Shiga.	Ileocolitis.	Recovered.	Rhachitis.	8	16
2	31	No.	Condensed milk	9	5	Severe.	Harris, Shiga	"	Death.	Gastritis.	7	14
3	27	No.	Water; cow's milk.	3	9	"	Harris.	"	"	Rhachitis.	2	12
4	24	No.	Cow's milk.	14	17	Moderate.	"	"	Relieved	...	6	31
5	38	No.	Breast fed.	7	55	Mild.	"	"	Well	*Necrosis of skin*; abscess of leg.	21	40
6	71	No.	Oatmeal water; cow's milk.	6	2	Severe.	"	"	Death.	...	6	8
7	64	No.	Oatmeal water; cow's milk.	7	16	"	"	"	Well	...	6	17
8	33	No.	Horlick's Malted Milk.	1	1	"	"	Cholera infantum	Death.	...	3	1
9	74	No	Not given.	?	10	"	"	*Ileocolitis*.	No relief; died later.	Rhachitis.	6	10+
10	75	?	Table diet.	0	58	"	"	Enterocolitis.	Unrelieved.	...	48	58
11	69	4 weeks before	Cow's milk; water āā.	1	27	"	"	Ileocolitis.	Well	Rhachitis.	4	28+
12	77	2 mos. before.	Cow's milk; Mellin's food.	4	27	"	"	Ferment diarrhea	"	"	9	26
13	85	No.	Mixed diet.	6	1	"	"	Ileocolitis.	Death.	...	20	7
14	78	No.	Breast.	7	16	"	"	"	"	Gastritis, otitis media.	10	23
15	103	3 weeks before	Condensed milk	1	47	"	Harris, 3 crops.	"	No relief; died later.	Purpura.	6	55
16	106	No.	Condensed milk	5	5	"	Harris.	"	Death.	...	7	10
17	115	No.	Modified milk.	14	1	"	T. B.	"	"	Miliary T. B.	6	15
18	122	One 1 yr. ago; one July 12-27	Cow's milk; bread; beef juice.	2	19	"	Harris.	"	Well.	Rhachitis.	16	4
19	129	No.	Bread and milk.	3	6	"	"	Enterocolitis.	Death.	"	13	9
20	Out pat.	?.	Mixed diet	0	1	Mild.	Negative.	Ileocolitis.	Recovery.	...	48	1
21	57	No.	Oatmeal water; modified milk diluted.	5	55	Moderate.	*Harris*.	Gastroenteritis.	No relief	T. B. adenitis	7	60+
22	121	No	Table diet.	5	29	Severe.	Typhoid.	Ileocolitis.	Well.	...	24	34
23	143	No.	Table diet.	4	2	"	Harris.	"	Death†.	Gastritis.	18	6
24	150	No.	Milk (diluted)	3	17	Mild	"	"	Well.	Rhachitis	14	20
25	154	No.	Table.	14	4	Severe.	Shiga.	"	Death.	Lobar pneum'nia; pemphigus.	36	18
26	199	No	Eskay's food	7	34	"	Negative.	"	Well.	...	5	41
27	23	No.	Mellin's food.	5	63	Moderate.	Harris.	"	Died.	Lobar pneum'nia; pericarditis sup.	4	63
28	148	No.	Condensed milk	5	32	Mild	"	"	Relieved.	Central pneum'nia	6	31
29	159	No	Cow's milk	14	12	Severe.	"	Enteritis.	Died.	Rhachitis.	5	26
30	165	No.	Condensed milk	21	5	"	"	Ileocolitis.	"	Pleurisy.	3	26
31	164	No.	Eskay's food	2	26	"	Shiga. Harris	"	Well.	Gastritis	6	28
32	119	No	Nestlé's food; cow's milk.	5	32	"	Negative.	Gastroenteritis.	Death.	Purpura.	4	37
33	80	No.	Condensed milk.	42	22	"	"	Enteritis.	"	T. B. *meningitis*.	3	64
34	179	No.	Condensed milk; Mellin's food.	14	21	Moderate.	Shiga.	"	Relieved	Chronic otitis media.	6	35
35	172	No.	Breast.	4	9	Severe.	Negative.	"	Unrelieved.	T. B. meningitis.	5	13

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* No discoverable cause of the attack save in Case 14, where an unclean breast pump had been used. † Autopsy showed ulcerative colitis.

FATAL CASES.

The histories of the fatal cases were as follows:

Case 2.—Boy, age 7 months; well developed and nourished, slightly anemic, tongue dry with white coat, collapsed and drowsy. Temperature 104 F. Very weak. Persistent vomiting. No tenesmus. Dejecta 6 to 9 a day, green mucus and blood. Died five days after entrance. Treatment: Stimulant and serum, Harris (132 F.) 10 c.c. on three days. No change after first day, when child seemed brighter. There was no change in character of pulse. The dejecta remained unchanged, but dropped in number. The fifth day temperature rose to 105.4 F., and child died.

Case 3.—Boy, age 2 months, poorly developed and nourished. Slight rosary. *Few râles in back. Heart* action weak, peripheral circulation sluggish. Child restless. Occasional vomiting. Dejecta 6 to 10 a day, green with mucus. Some tenesmus. Treatment: Stimulant and serum. Child lived 9 days. Serum given six times, 10 c.c. on consecutive days; temperature dropped from 104.8 to 96 F. Improved slightly for two days, then failed rapidly. Dejecta unchanged. Child practically moribund on entrance.

Case 6.—Girl, age 5 months; fairly well developed and nourished; pale. Temperature 102 to 105.6 F. Pulse weak, somewhat restless at times. Child was prostrated on entrance, severe tenesmus, marked vomiting. Lived 48 hours. Dejecta 12, green fluid with mucus. Treatment: Stimulant. No serum.

Case 8.—Girl, colored, age 3 months; well developed and nourished; tongue coated, fontanelle depressed; pulse weak, intermittent; extremities and skin cold and clammy; stuporous; temperature 101.5 F. Dejecta very *thin, faint* green tinge, four *in* number. Face pinched. Died a few hours after entrance. Had two convulsions. First limited to right arm. Later general. Duration of one day; vomiting and twenty dejections. Autopsy after 16 hours: Thymus to fourth rib. Pericardium about 10 c.c. fluid. Slight hypostatic congestion of both lungs. Mucosa of colon slightly injected. Cultures made from scrapings of mucosa.

Case 13.—Girl, age 20 months; well developed and nourished. Prostrated, extremities cold and cyanosed, tenesmus. Comatose. Circulation fair. Temperature 104.8 F. Lived two hours. Moribund *on entrance.* Treatment: Serum 20 c.c. No response to saline infusion or stimulation. Autopsy refused.

Case 16.—Girl, age 7 months; well developed *and nourished.* Prostrated, heart sounds weak. Skin inelastic. Restless. Temperature 101 to 104 F. Dejecta 6 to 9, green with mucus and blood. Treatment: Stimulation of no avail. No serum.

Case 19.—Boy, age 13 months; well developed and nourished. Physical *examination negative.* Drowsy. Slight tenesmus. Dejecta 5 to 10, brown with mucus. Mild constant vomiting. Temperature 100 to 102.5 F. Lived 6 days. Twenty c.c. serum given once without effect. Stimulation no effect. Died with meningeal symptoms, unequal *pupils,* Kernig's *sign,* retracted head, arms flexed and somewhat spastic.

Case 23.—Girl, age 18 months; well developed and nourished. Prostrated. Temperature 104.8 F. Tenesmus. Dejecta 4, yellow green with mucus. Lived 28 hours after entrance. Treatment: Stimulation. Autopsy shows a "colon thickened, scarcely pliable. Bleb-like lesions resembling herpes of skin." Probably early stage of follicular ileocolitis.

Case 25.—Boy, age 3 years; poorly developed and nourished. Physical examinations negative. Drowsy. Dejecta 2 to 9, green with mucus, and blood streaks. Treatment: stimulation and saline infusion; no serum. Case *moribund on entrance.*

Case 27.—Girl, colored, age 4 months; fairly well nourished. Rosary. Dejecta 5 to 8 a day; greenish-yellow, with mucus. Dejections in several instances consisted of purulent material, almost wholly small, mononuclear lymphocytes. Suffered considerably from distension. The enteric trouble had ceased when signs of pneumonia appeared and failed to resolve. Postmortem examination showed suppurative pericarditis, unresolved pneumonia and a small sacculated empyema. No serum had been used. Duration 55 days.

Case 29.—Boy, age 5 months; well developed and nourished. Some tenesmus. Restless. Dejecta 2 to 4, greenish-yellow, with mucus; gradually fell into stuporous condition. Lived 12 days. No serum used.

Case 30.—Girl, age 3 months; well developed and nourished. Prostrated on entrance. Somewhat restless. Signs of pneumonia, in right base posteriorly. Autopsy showed bronchopneumonia. Gastroenteric tract normal. Serum 2 doses, 20 c.c. each without effect.

Case 9.—Boy, 6 *months of age,* well *developed and nourished;* slightly anemic. In poor condition on entrance, pulse weak, 134. Temperature 103.5 F. Dejecta 8 a day, green with mucus. Under treatment 8 days. Serum given twice, 10 c.c. No apparent effect. Discharged unrelieved, died later.

Case 15.—Boy, 6 months of age; well developed and nourished; in good condition. Restless. Marked tenesmus. Excellent general condition. Dejecta 6 to 9 a day, much mucus and pure blood. In this case there were two distinct recrudescences during each of which crops of the *B. dysenteriæ* (Harris) could be easily isolated in 24 hours. Serum was given for 15 days, 10 c.c., *twice a day for one week.* The course of the case was down hill. The child developed purpura. Discharged after being under observation for six weeks. Child died a week later at the Children's Hospital. Autopsy showed a much thickened but healed colon.

SERUM TREATMENT.

Of the 16 who died, 5 received serum in addition to all other treatment; of the 11 discharged well, 7 had serum; of the 4 relieved, 2 had serum; of the 4 unrelieved, all had serum before leaving us.

Of the 5 who died and who received serum, 1 received three doses of 10 c.c. each; 1 five doses of the same amount, and 3 each received one dose of 20 c.c.

Of those discharged unrelieved, 1 received two doses of 10 c.c., 1 three doses and 1 eight doses of the same amount, while the fourth had 20 c.c. at one dose.

Of the discharged well who had serum, 3 had two doses of 10 c.c., 1 three doses and 1 nine doses of the same amount, while 2 had the larger dose of 20 c.c.

One of the two discharged relieved had a single dose of 10 c.c. and the other had five doses of the same quantity.

One of the two who recovered following the single dose of 20 c.c. was 6 months old and the other 17 months old.

CONCLUSIONS AS TO SERUM TREATMENT.

Hence it does not seem that any positive conclusions can be drawn from our experience with the serum. We are confident that no harm was done. The form in which it was furnished was entirely satisfactory from a practical point of view, being, we believe, a duplicate of the way in which Mulford issues diphtheria antitoxin. If we can have a supply another year we shall be glad to try it further. We believe a stronger serum which will then be available may be more efficient.

In conclusion, I would acknowledge with thanks the assistance of the house staff, and especially of my senior house officer, Dr. John F. Fennessey, whose co-operation alone has made possible this report.

THE PANAMA CANAL AND ORAL HYGIENE.

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Among the diseases which will extensively prevail during the work on the Panama Canal is interstitial gingivitis.

In this disease the alveolar process and gums are involved, the teeth become sore and loose and finally sometimes drop out. Medically, so far as the gums and teeth are concerned, the disease is not unlike scurvy, The pathology and etiology at bottom are the same. It is caused by change of climate and food. Men going from a temperate to a hot or cold climate are quite prone to this disease. Soldiers in the Philippines, according to official report, are attacked by a disease of the gums—the teeth become sore and drop out. General Otis' (mail) report cites the case of Walter Fitzgerald, Company C, Twenty-eighth Infantry, formerly of the Montana Volunteers. This man of 23 years had been in the Philippines for a year and seven months. He was one of the first volunteers to reach Manila after Dewey's victory. Nineteen months in the tropics, subsisting on the rations of the Army, had resulted in the loss of nearly every tooth in his mouth. In a man of his age this was a rather severe attack.

The engineers and workmen on the Jungfrau (Switzerland) Railroad, after two or three weeks in the high altitude, suffer from symptoms similar to those observed in the Philippines. Food as well as climate has clearly much to do with the disease. The excretory organs do not adjust themselves to the new environment and auto-intoxication results. Intestinal fermentation, one of the great causes for this disease, also occurs. Indicanuria and allied states are symptoms of this disturbance. Vasomotor ataxia is frequent.

On examination of the officers and soldiers of two companies who had just returned from the Philippines, located at Fort Sheridan, Ill., I obtained the following data: Total number examined 127. Americans 98, Irish 12, Germans 9, English 3, Norwegians 1, South Americans 1, Danish 1, Russians 1, Cuban 1. The ages ranged from 21 to 52. By ages the following data were obtained: 21 years—8 had the disease, 22—5, 23—17, 24—12, 25—15, 26—9, 27—4, 28—8, 29—11, 30—5, 31—4, 32—7, 33—1, 34—2. 35—none, 36—1, 37—7, 38—1, 39—3, 40—none, 41—none, 42—1, 43—1, 44—1, 45—none, 46—1, 47—1, 48—none, 49—none, 50—1, 51—none, 52—1. Of the total 127, 18 were free from the disease; it was marked in 36, medium in 27, slight in 46. The percentage of those free was 14.1, marked 28.3, medium 21.2, slight 36.2 per cent.

It will be noted that the largest number of cases of the disease occurred between the ages of 21 and 30, a period of life at a constructive stage when the disease should not be present. The men over 40 were nearly all officers who took better care of their mouths. It must also be noted that these men lived most of the time in the open air. In the American Army mostly young men are enlisted. It is obvious that the effect of climate and food is very severe.

There is probably no part of the United States where this disease is so prevalent and so demonstrable as in the northwest. The sudden changes of temperature from extreme heat to cold and the passage from heated houses into the cold atmosphere, and vice versa, prevent adjustment of the excretory organs to unequal temperature, thus resulting in auto-intoxication.

The alveolar process (holding the teeth in position) is a double transitory and most sensitive structure of the body. After its development about the permanent teeth, it is only waiting for some irritant to cause a low form of inflammation in order to destroy the bone tissue. This is done by three forms of bone absorption, namely, halisteresis, Volkmann's perforating canal and lacunar or osteoclast absorption. The form of absorption most active in this disease is halisteresis. The bone is soon destroyed and the teeth loosen and drop out. It is not a painful process; the inflammation may exist for years and the patient be unmindful of its presence until the teeth loosen and are sore to touch.

The treatment indicated is both local and constitutional. The local treatment consists in the removal of the deposits about the roots of the teeth and saturation of the gum margins with iodin, or what is better still, with the following, which should be applied every other day:

℞.	Zinc iodid	15
	Water	10
	Iodin	25
	Glycerin	50

The gums should be massaged three times per day with a stiff brush. They should be made to bleed freely. This will remove the congestion and stimulate the gums and alveolar process to a healthy action.

Constitutional treatment consists in removing the cause. Men going from the north should be very careful of their diet. Food adapted to warm climates should be used. Meat diet should be regulated to the capacity of the individual and as soon as possible. Faulty metabolism must be corrected. Above all, the organs of elimination must be adjusted to the environment as soon as possible. Since the alveolar processes are transitory structures and more easily affected by disease than others, they and the gums are excellent early indices of grave constitutional complications.

Nutmeg Habitation.—F. B. Brubaker reports in the *Medical Summary* that a young woman of 16, by repeated tasting of nutmegs while doing household baking, acquired a habit for the narcotic. The symptoms were weak and rapid heart, profound anemia, general muscular weakness, dyspnea and emaciation.

ROUTINE METHOD OF DETECTING AND DIFFERENTIATING REDUCING AGENTS FOUND IN THE URINE.*

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It is my purpose in this paper briefly to call attention to a few well-established facts, point out some of the fallacies of our principal tests and outline a reliable and simple course of procedure for the differentiation of the various reducing agents which may appear in the urine. Most of the tests ordinarily employed are good negative tests, but to accept a positive reaction without confirmation is a frequent source of error in diagnosis, as I shall point out.

While, as a rule, we are called on to determine the presence or absence of dextrose, occasionally it is very important to determine whether or not other carbohydrates, as well as some other compounds, are present in the urine. Without exact confirmatory tests, it is practically impossible to definitely determine the presence or absence of dextrose. It is a rule with many physicians to depend on one single test for sugar, and rarely is it considered necessary to employ confirmatory tests. That such methods are not reliable will be evident if we consider the fallacies of the various tests. Some of these fallacies have been pointed out but recently, while others have long been emphasized, but still a few of the principal tests have been accepted without further inquiry.

THE COPPER TEST.

Perhaps the most popular of all sugar tests is the old Trommer test, or some modification of it. The chemistry of all copper tests is practically the same. The reagent consists of a solution of cupric hydroxid or, if the solution be older and after heating, the cupric oxid. A positive reaction consists in the reduction of the cupric oxid to cuprous oxid, which manifests itself as a yellow or red precipitate. There are some objections to Trommer's test which make it less accurate and not so convenient to use as some other solutions.

1. It requires two separate solutions to be mixed when the reagent is needed.
2. If these solutions are not used in the proper proportion a precipitate will form.
3. A large quantity of urine is required, increasing the liability of error from the presence of uric acid, creatinin and the phosphates precipitated by the KOH.
4. The test is not delicate without boiling, and when boiled becomes oversensitive.

A more convenient solution is that originated by Fehling, prepared by dissolving cupric sulphate, sodium tartrate and sodium hydrate in water. This test is more convenient because it requires only one solution, but owing to the instability of the tartrates, the solution is not permanent. The tartrate in aqueous solution, being acted on by the light and the alkali, is decomposed, and reduction takes place either at ordinary temperature or on heating, more especially if the solution be slightly neutralized by a highly acid urine. It is not an easy matter to prepare a fresh solution whenever we desire to use it, and we can not rely on an old solution. This objection has been entirely overcome by Professor Haines, who uses glycerin instead of the tartrate to hold the cupric hydroxid (or oxid) in solution, making a clear blue test solution, which does not deteriorate with age. After a time it deposits a slight sediment which does not interfere with the delicacy of the solution, but rather makes it more sensitive for the test. Haines' solution may be accepted as a convenient and reliable representative of all copper tests. In applying the test, boil about one dram of the solution and add six drops of the suspected urine and boil again. If no precipitate forms, add six drops more of the urine and boil again. If still no precipitate forms, cool by holding the test tube under tap. If no precipitate forms, we can safely decide that no abnormal amount of sugar is present, but we should not arrive at this conclusion until the last step in this technic has been carefully carried out, for in certain solutions of dextrose, reduction does not take place until again cooled. I have found that to be true in two cases of glycosuria. I am not prepared to give an explanation for this, nor do I know that one has been offered.

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* Read at the meeting of the Lee County Medical Association, Dec. 22, 1903.

Another fact which has not been satisfactorily explained is that some precipitates are red, while others are of a greenish-yellow color. The old theory is that the one is the hydrated cuprous oxid. More recently, however, it has been pointed out that cuprous oxid may exist in the two isomeric forms, the red and the yellow. The reaction is equally positive, whether the precipitate be red or yellow.

Should a positive reaction result from the application of the copper test, we can not be certain from this test that the reducing agent is dextrose, for a number of substances will produce the same reaction. Levulose, lactose, maltose, and the pentoses are other carbohydrates which possess the reducing power. Uric acid and creatinin, when present in excess, may reduce the copper solution. Certain synthetic compounds are powerful reducing agents, as glycuronic acid, normally present in small quantity but greatly increased in amount after the exhibition of such drugs as camphor, chloroform, chloral, aspirin, europhen, hydroquinone, urotropin, acetanilid, antipyrin, phenacetin, salol, bromol, salicylic acid, thymol, menthol, eucalyptus, glycerin and the aldehyds. In this era of patent medicines and home remedies, we can not know what our patients might have taken, and must be constantly on our guard. Hippuric acid, which is increased after taking benzoic acid or the benzoates internally, may reduce the solution.

Lastly, I wish to emphasize the alkaptons, which are hydroxy-phenyl-acetic acids ($CH_2[C_6H_2(OH)_3]COOH$), which immediately reduce the copper solutions, and any case in which a very rapid and pronounced reduction takes place would arouse suspicion and should lead to a very careful study of the case. The alkaptons are products of perverted metabolism, frequently hereditary in origin, and have no special pathologic significance, but must be recognized, when present, to avoid error.

It will be seen, therefore, that the reduction of a copper solution merely indicates that we must resort to other differential tests to determine the exact nature of the reducing agent present.

BISMUTH TESTS.

Bismuth solutions are used also and are very conveniently represented by Nylander's reagent. In this solution the addition of KOH to the bismuth subnitrate forms the bismuth hydroxid, and on heating, the trioxid is formed, which may be reduced to the suboxid or even to metallic bismuth, producing a black color or precipitate. Bismuth solutions are not reduced by the alkaptons, therefore they may serve to differentiate these substances from other reducing agents. They are reduced by glucose, levulose, lactose, pentoses and glycuronic acid. Nylander's reagent is very sensitive to reducing agents, but its great fallacy lies in the fact that all proteid compounds containing sulphur, on being boiled, yield the sulphur to combine with bismuth, forming the black sulphid which may be mistaken for the oxid. Not only albumin, but the nucleo-albumin (mucin), which is present in a large percentage of urines, will produce this reaction. Out of one hundred specimens of urine which I have tested, Nylander's reagent gave a black precipitate in fourteen, none of which contained sugar. Therefore, bismuth solutions may be depended on as delicate negative tests, but a positive reaction means very little.

TEST BY FERMENTATION.

The fermentation test is not delicate, because a portion of the CO_2, corresponding to 2.5 grains of sugar to the ounce of urine, is absorbed by the fluid, but it is a useful confirmatory and differential test. Glucose and levulose ferment readily. Lactose does not readily undergo alcoholic fermentation, but rapidly undergoes lactic acid fermentation. The pentoses, glycuronic acid, hippuric acid and the alkaptons do not ferment, and may thus be differentiated from dextrose and levulose, *should the copper and bismuth tests have given positive* results. Again, should the urine, after complete fermentation, still reduce the copper or bismuth solutions, it would indicate that part of the reduction at least was due to glycuronic acid, hippuric acid or alkaptons.

PHENYLHYDRAZIN.

The phenylhydrazin test has been highly recommended, and some eminent authorities state that there can be no substance present in the urine which forms crystals resembling those of phenylglucosazon. It has been clearly demonstrated, however, that glycuronic acid, oxalic acid, carbamid, pentoses and other substances combine with phenylhydrazin, and the crystals formed by glycuronic acid are, from all appearances, exactly the same as those of phenylglucosazon. Maltose, when present, will produce a maltosazon, which very closely resembles the crystals of glucosazon. We have, therefore, three azons produced which must be differentiated, and to do so, we determine the melting point of the crystals. Those crystals formed by glycuronic *acid will melt at a temperature of 114 to 115 C.*; the maltosazon melts at 190 to 191 C.; the glucosazon, in its impure form, melts at 173 to 194 C., but in its pure state, obtained by washing with water, dissolving in alcohol and again precipitating with water, its melting point is 204 to 205 C. The technic of the phenylhydrazin test, therefore, is very complicated, and is not absolutely reliable except in the hands of expert chemists.

THE ORCIN TEST.

By employing the copper, bismuth and fermentation tests we can differentiate lactose, the pentoses, glycuronic acid and the alkaptons from dextrose. The pentoses may further be recognized by the orcin test. For this purpose, M. Bial recommends a solution of ferric chlorid, hydrochloric acid and orcin, and advises that the solution and urine be heated until the first bubbles form, when, if pentoses be present, a green color or precipitate will appear. Boiling may produce the same color if glycuronic acid be present. In preparing the reagent we must be careful to use orcin instead of the orcein, which is a dye made from orcin.

The alkaptons may be recognized by a characteristic test. On the addition of KOH, with an excess of oxygen or more slowly as the oxygen is absorbed from the air, the urine becomes dark brown and finally black, if alkaptons are present.

THE USE OF THE POLARISCOPE.

Finally, we have still to differentiate between a dextrosuria and a levulosuria. It has recently been pointed out that levulosuria occurs much more frequently than has been reported, because most of the cases have been overlooked. In all of the above tests, with the possible exception of the phenylhydrazin test, levulose and dextrose give identically the same reactions, but we can certainly differentiate one from the other by the use of the polariscope. Dextrose deflects polarized light toward the right, while levulose deflects polarized light toward the left. In using the polariscope for qualitative analysis, however, we must bear in mind that (1) maltose is also dextrorotary, but its power of rotation is greater than that of dextrose. It can also be recognized by the fact that its slight reducing property is greatly increased on the addition of sulphuric acid. (2) Oxybutyric acid and diacetic acid are levulorotary, and when present, may modify or entirely overcome the dextrorotary power of dextrose, so that the polarized light may be deflected toward the left in the most extreme case of glycosuria. In such a case, however, we would submit the suspected urine to the polariscopic examination and note the degree of rotation. Then subject the urine to fermentation, and after complete fermentation, repeat the polariscopic test, when the diacetic acid, being unopposed by the dextrose, would deflect the polarized light still farther toward the left.

SUMMARY.

In closing, we may sum up the following conclusions:

1. The copper and bismuth tests are reliable negative tests, but a positive reaction must be confirmed.
2. Trommer's test is not always reliable.
3. Fehling's solution is not permanent.
4. Haines' solution is the most convenient of all copper solutions, and is reliable if the above technic is followed.
5. Bismuth solutions are not reduced by the alkaptons, and serve to differentiate them from other reducing agents.
6. The fermentation test is in itself not characteristic, nor is it very delicate, but it serves to differentiate lactose, glycuronic acid, hippuric acid, the alkaptons and the pentoses, which do not ferment, from levulose and dextrose.
7. If the completely fermented urine should still reduce the copper solution, it indicates the presence of glycuronic acid or alkaptons.
8. Phenylhydrazin test is good, but the technic is complicated.
9. Pentoses may be recognized by the orcin test.
10. Alkaptons are recognized by the characteristic ozonized alkali test.
11. Finally, we can differentiate dextrose from levulose by a polariscopic examination.

Cancer from Corsets.—In the London *Lancet*, Dr. R. A. Lucas describes three cases in which cancer was apparently caused by the friction of the pectoralis major on the edge of the corset. Each case occurred on the right side in a woman whose occupation caused much use of the right arm.

A CASE OF CIRCULAR INSANITY STUDIED FROM CLINICAL, DIFFERENTIAL AND FORENSIC STANDPOINTS.

RICHARD DEWEY, A.M., M.D.
WAUWATOSA, WIS.

WITH GROSS AND MICROSCOPIC ANATOMY OF BRAIN (FROM THE PATHOLOGICAL LABORATORY OF THE UNIVERSITY OF CHICAGO), BY THOR ROTHSTEIN, M.D., CHICAGO.

INTRODUCTION.

The case of X. merits study from several points of view: First, with reference to diagnosis owing to the conflicting opinions expressed by experts during the patient's lifetime, as to the form of mental disease; also in a medicolegal sense, on account of the great number and variety of legal contests growing out of the patient's mental condition, in which he himself actively and often brilliantly participated. The case also incidentally involves the study of a remarkable personality, and the clinical history consists largely in the narration of extraordinary acts, "antics" and vagaries of a mad but acute and brilliant mind. Finally the findings resulting from the examination of the brain present much of interest in both a positive and negative sense.

The following statement of the case has been prepared from personal observation of the patient when under my care in the State Hospital at Kankakee, Ill., in 1889 and 1890; from information given by himself in lucid periods and by family and friends; also by colleagues who observed the case; also much information has been gained from the public press.[1]

There is something lacking in completeness, owing to the fact that from 1899, when he was under my care, to 1901, the year of the patient's death, only cursory examination was secured by me.

PRELIMINARY HISTORY.

X. was born in England in 1856, and came to Chicago at 14. His father, a retail grocer, a man of unusual ability and originality, was a victim of alcoholic excesses at periods in his life, but reformed, and for twelve years kept temperate and spoke eloquently in the cause of temperance. He relapsed, and was also addicted to drug habits in his late years, and died during the patient's boyhood. His paternal ancestors, according to the patient's own statement, "for many generations were drunkards, dissipating their estates and drinking themselves into their graves." His mother, though thought to be consumptive at patient's birth, became strong and well, and now enjoys good health at an advanced age. Musical talent is a characteristic of the mother's side (For fuller anamnesis see *Status præsens* below.)

The patient in early life showed much precocity. In infancy he was believed to be affected with hydrocephalus. He had three brothers who died in early life, it is supposed of hydrocephalus. The patient's activity of mind is illustrated by the fact, stated by his sister, that at 5 years of age he had read Scott's Ivanhoe five times through. He was bright at school, and seems to have easily kept with the first in his class. He relates that when graduating in the public school and receiving some decoration for his proficiency, he resolved to seek a position on the school board of the city, and he realized his ambition in a few years. He became a successful attorney, and took an active part in politics and in social life, enjoying much popularity, though generally considered an exceptional character.

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[1] A scrap book of press clippings in my possession makes about 40 newspaper columns and is far from complete.

The patient had always been subject to marked attacks of what he called the "blues," and was alternately elated and despondent in more than an ordinary degree, and often without reference to any external reason. He worked hard and almost uninterruptedly in his profession for ten years, taking very little relaxation and contesting his cases in court with unusual skill, force and persistency.

In 1885, at 29, the patient had what he called a "nervous breakdown," and was advised by his physician to take a long journey for his health. He had been actively engaged as an attorney through the battle of the C., B. & Q. Railroad with its locomotive engineers, acting as legal assistant, and during the strike was at times, according to his own statement, in positions of danger and difficulty.

Fig. 1.—Normal. Aged 31 (1887).

In the spring of 1887 he went through an exciting political campaign. The candidate for mayor whom he opposed was elected, and the patient lost his position on one of the city boards, and was for a time in what he describes as "mental collapse." He recovered soon from this, and in the summer of that year attracted considerable attention by the manner in which he performed the function of presenting to Queen Victoria the "Jubilee Address" of an association in Chicago, to which he belonged. He went to London, and by his persistence with both the home and foreign offices, and by securing the assistance of the American legation and by using the cable freely, finally secured an interview with the queen and had the satisfaction of being received by her at her residence, Osborne House, on the Isle of Wight, presenting his address and receiving a polite written reply from her in response.

After the patient's return, he caused a magnificently bound and printed volume to be published containing the address to the queen and an account of his reception, with full-length portraits of both the queen and himself included in the volume.

FIRST MANIC-DEPRESSIVE CYCLE.

The patient next drew on himself general attention in Chicago in the spring of 1889 by his exploits in the campaign for the election of city officers. He entered actively on the canvass, especially in opposition to a certain candidate of his own party, on whom he made very successful war. To illustrate his mental state, I will give some extracts taken from a pamphlet published by the patient, the introduction on which compares him with Don Quixote and General Boulanger, and says: "No such character ever before challenged attention." "Let him alone and he will be president and king of England, both *at once*." His proceedings during the election are then described in part as follows:

> The biggest man in Chicago last Wednesday was X., also the proudest and happiest. The headquarters of both parties were nothing in comparison to his law office. He was overrun all day long, and for everyone there was a royal welcome. Everyone, friend or foe, got a word of cheer and a cigar, the like of which *grows not* outside Havana—a 50c "Jack Rose," fresh and fragrant, and with a delicious odor of victory about it. . . . He invited some of his intimates to a little love feast at Billy Boyle's. . . . English chops and juicy roasts were washed down with Mumm's of the extra dryest kind. When the company finally separated X. agreed with F. W. to sail with him *soon* for a pleasure trip to Europe. Not only had he won glory, but a mint of money. Over and above expenses he had the snug sum of $10,700 to his credit by the Democratic victory Tuesday.

He describes his exploits as follows:

> On the morning of election I arose at 5 o'clock and was on horseback for eleven hours. I went from poll to poll. I would gallop up to a precinct, offer to bet $1,000 to $500 against W. and generally encourage the boys. At one polling place I came across a strolling band of Italian musicians that I at once hired for the day. One of the places visited was the ——— Club. It was ladies' day and the club was thronged. They all came to the windows, waving their handkerchiefs and throwing kisses to me. I next stopped at the ——— Club House. The members all came running to meet me, headed by my dear friend C. H. I marched into the club to the tune of "Hail to the Chief." We paraded through all the rooms and I instructed the steward that from that hour forth until next morning nobody could have anything from the bar to eat or drink or smoke without charging it to me. We went down to my house. My dear wife and my dear old mother—God bless her—and my children were standing on the steps, and the neighbors were all in their windows, and hundreds of people were in the street. The band played "Hail to the Chief," I saluted my family and friends, paid my men and went in. I immediately sent an order to G. & M. to send up several cases of champagne to the ——— Club, telephoned the Garfield Park Rosery for a hundred dollars' worth of flowers, and engaged the full Valisi mandolin orchestra to play there.

It was in the campaign above described that X. was believed to have received an injury of the head from an assault made apparently by hired thugs attacking him when passing a dark alley. Accounts differ as to the extent to which he was injured, but he was undoubtedly attacked and knocked down and received a contusion of the left parietal region, causing some swelling. He was not rendered unconscious, and a medical friend who saw him immediately after, states that the injury was slight. It is probable undue importance was subsequently given this circumstance on account of the natural desire to find in it a cause for the insanity. It is not impossible that the concussion of this wound aggravated his natural lack of balance, but the postmortem showed that no visible traces of injury from it were present. It is certain that a considerable degree of mental exaltation (and later depression) followed the above-described campaign. X. began to show a disposition toward great extravagance, giving extraordinary presents for number and value to his friends, purchasing silk umbrellas, canes, etc., by the dozen and giving them away and buying suits of clothing for himself in the same manner, also scattering flowers in profusion among the ladies.

About this time he again announced his intention of starting for Europe. Every effort was made to dissuade him, but without avail, and when he went to New York, before sailing and while waiting there, the idea was seriously considered by his friends of committing him to some private asylum. This fact became known to the patient, who scoffed at the idea of being examined by physicians, but expressed his willingness to meet them and entertain them at dinner, and I understand that three gentlemen (one of whom was Dr. E. C. Spitzka) met him in this way, and after seeing him, agreed that he was in the early stages of an attack of insanity, but that in his present state no court would sustain an attempt to interfere with his freedom. One of the experts believed he was in the incipient stages of paresis. Of the opinions of the others I have no knowledge. X. himself assured his friends that he would oppose any attempt to interfere with his liberty or place him under control. He went to London and was absent a few weeks, passing through a brief normal interval, but his period of depression began to come on. His condition after his return home is described by the patient himself as follows:

> On my return home I was undoubtedly a victim of that variety of insanity called melancholia. I had always been subject to the "blues" periodically, but at this time I thought I was bankrupt, although I was worth, as it is estimated, at least $200,000. I thought my business had left me and could not concentrate my thoughts and mind on anything except my own trials, and finally, tried to assassinate myself, like a fool (referring to an attempt at suicide, it is supposed). I was sent to the sanitarium at Wauwatosa, where I thought I was followed and surrounded by the Clan-na-Gaels and that the defense of the Cronin trial (then going on in Chicago) would be that I was a British spy—a Le Caron—and that I, with the help of my English friends, killed Cronin in the interest of the English government to besmirch the Irish leaders and throw the guilt on them.

Dec. 7, 1889, X. was brought from Wauwatosa to Chicago and found insane by the County Court of Cook County, and committed to the Kankakee Hospital for the Insane.

STATUS PRÆSENS. EXAMINATION AT HOSPITAL.

It was at the time of X.'s commitment to the hospital at Kankakee that he came under my personal observation. Particulars with reference to the condition of the patient were as follows: Native of England. Parents born in England. Father and paternal ancestors for several generations said to have been addicted to alcoholic excesses. Father, a grocer; also exhorter in M. E. Church, addicted also to drug excesses. At one time temperate for several years and eloquent speaker for temperance reform. Three brothers of patient alleged to have died in infancy of hydrocephalus. Mother in good health at advanced age; marked musical talent in mother's family. Mother at time of patient's birth thought to have been tuberculous.

Patient's recent habits in regard to alcohol and tobacco excessive. Age, 34; married; three children; one died suddenly in infancy of obscure brain disease; occupation, attorney; education, high school; weight, 178 pounds; height, 5 feet 8½ inches; head large but symmetrical; size of hat worn, 7 11/16; eyes blue; pupils normal; complexion fair; physically muscular, stout and robust and thick set; no stigmata of physical degeneration; neck large and short; tongue clean; appetite capricious; digestion good; bowels constipated; sleep irregular; state of special senses and their organs normal. Cutaneous, tactile and reflex sensibility normal, except the tendon reflexes somewhat diminished on right side; heart, lungs and pulse normal; genito-urinary system normal; no evidences of syphilis; mental state dull and depressed and silent. State of memory, perceptions and reasoning power unascertainable, but evidently much weakened; volition impaired; manner vacillating.

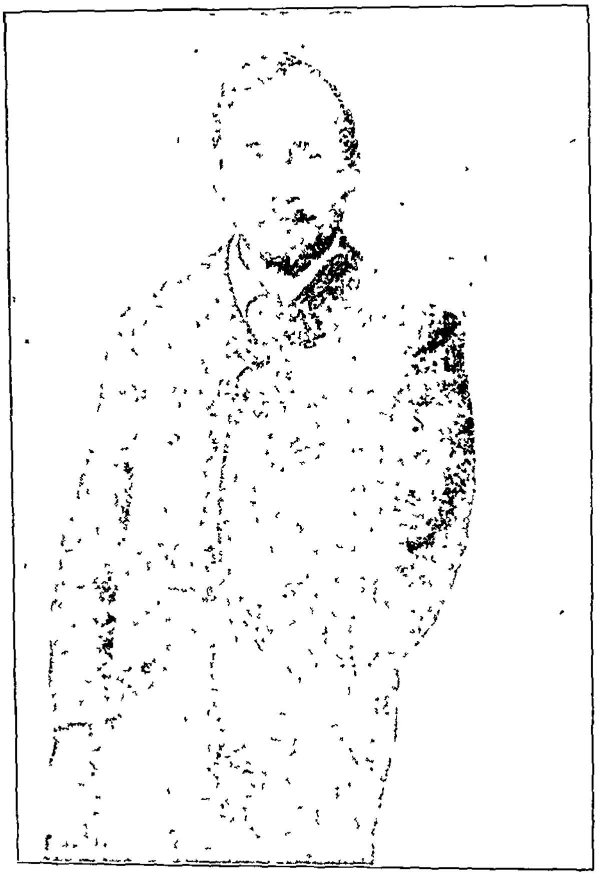

Fig 2—Depressed state. First cycle, aged 34 (January, 1890).

The following are notes with reference to the patient's condition:

Dec. 8, 1889. Patient dull and demented. Walks mechanically about the ward or sits by himself, having little to say to anyone. Marked retardation in movements and ideas. Does not give expression to delusions (he afterward described as having at this time the idea that he was suspected to be a British spy by the Clan-na Gaels.

December 16. Depressed, but better. Realizes his condition and speaks of his mind as being "muddled."

Jan. 1, 1890 About the same. Does not care to see anyone and does not want to leave the ward—even to go walking. Appetite good. Physical health good. If friends call to see him avoids them and tries to keep out of their way.

January 20. *Much improved.* More cheerful. Talks very freely and worries considerably for fear people will not have confidence in him when he goes out.

January 30. Much improved. Cheerful most of the time. Thinks he is about well and talks of going home.

February 11. Very cheerful. Clear mentally. Has no delusions.

February 25. Cheerful. Says he never felt better in his life.

Normal Interval.—Toward the end of February patient was in very good spirits, but not to an abnormal degree. The coming of the World's Fair to Chicago (which was determined at this time), where he had property interests which he believed would be favorably affected, seemed to exhilarate him considerably, but naturally.

March 5, 1890. *Discharged.* Condition sane and normal to all outward appearance. Patient advised to remain longer at hospital, but, inasmuch as there was nothing in his condition warranting detention, he was discharged, especially as his determination to go was unalterable.

About the time of his discharge the wife of the patient stated to me that she had observed periodically a rather regular fluctuation in his mental condition. She believed that there had been for many years with much regularity periods of alternate depression and exaltation, averaging about five months each with a month of natural condition between.

SECOND MANIC-DEPRESSIVE CYCLE.

Within two weeks after his release, patient began to attract attention by his eccentric conduct. He appeared in a political convention dressed in riding boots and otherwise striking apparel, and went on the stage, whip in hand, to denounce a certain candidate.

He was next heard of in Omaha and Kansas City. In one of these towns he insisted on singing "Annie Rooney" in the street, and was arrested as disorderly after a lively encounter with the police, and spent the night in the station. The papers stated that he rode on horseback up the steps of a house and pulled the bell; also that he was ejected from the stage of one of the theaters. He showed an extreme degree of sexual erethism. These things might be attributed to drink in part, but did not differ in any degree from the action of the patient both before and after, when it was impossible for stimulants to have been a factor in the case.

The patient was induced to return to Chicago, and his condition was such that his friends immediately took steps for his recommitment to the State Hospital at Kankakee, where he was again committed by the court after an absence of about one month, and on the second admission he presented a marked contrast to the condition existing when discharged one month before. His physical condition was not changed, except that he was perhaps more robust and florid,[2] but he was in a continuous state of exhilaration and restless activity, sleeping little except under the influence of hypnotics. There was now scarcely a trace of any delusion except in his exaggerated ideas of property and self-importance. His insanity was shown in his conduct more than his ideas. He was remarkably quick and brilliant in use of his mental faculties, memory accurate, logical power great, fancy, imagination and gay emotions were all highly efficient. He was, as shown later, capable of great power of attention and severe and long-sustained mental effort, as would scarcely be possible in paresis. He was irrepressibly good-natured, though occasionally having outbreaks of rage at being interfered with. In his walks over the country, around the hospital with attendants, he purchased all the real estate and stock in sight. He offered to engage at large salaries many of the attendants and officers of the hospital for his personal service. He was markedly erotic in his impulses and actions. Within a few days of his admission he was granted a hearing on application for a writ of habeas corpus. His conduct in the court room was highly eccentric, but entertaining. During his presence in the court room the grand jury were brought in to be sworn, and as they stood in a row before the judge, X. interrupted the proceeding, addressed them and stated he would subpena them all as witnesses to his sanity. He also volunteered his assistance to an attorney in a suit then in progress, correcting the attorney's mistakes and showing both ability and brilliancy in striking contrast to the blundering of counsel. When presenting his application for a writ, he was told by the judge that the case would be heard "to-morrow," whereon the patient replied: "Your honor, I stand on my constitutional rights and refuse to agree to any postponement." The judge then agreed to hear the case at once, and X. assured him that he would "do as much for him if their respective positions were ever reversed," as he (X.) expected some day to "be on the bench" himself.

After the hearing the court remanded the patient to the custody of the hospital, and, after being remanded, X. remained in a state of continuous maniacal excitement until well on in August. He was at times violent, destructive and untidy in his habits. His physical condition remained as above described. There were still no evidences of motor or sensory abnormalities, depending on any structural lesion. Though his mental condition was suggestive of paresis, it was also entirely consistent with the theory of simple maniacal excitement.

From March 31 to June 24, 1890, when X. was released by habeas corpus proceedings in Chicago, he was in an extraordinary maniacal condition, but withal very brilliant and resourceful in his mental action. (See Fig. 3.) On one occasion when out in the grounds he suddenly gave his attendant the slip and dashed into the river. He went out some distance into the water and informed all who came near that he would drown them or himself, or both, if they attempted to bring him in. He was finally secured by having an attendant make a rush for him, having a rope tied around his waist, one end of the rope being in the hands of persons on the shore. The latter grasped the patient firmly around the body and both were then safely drawn ashore.

During this time the patient seemed to believe that if he should, as he expressed it, "raise merry hell" and be sufficiently violent, obstreperous and destructive, this might effect his release from the hospital. He also sought to appear in the rôle of one who is not only illegally confined, but also shamefully abused, and was constantly sending applications to the courts to be heard on writs of habeas corpus, representing himself as the subject of outrage. When quite alone in his room in the hospital and seeing persons pass by in front of the building near his window, he would throw himself on the floor and strike and pound the floor with his own body, to make as much noise as possible, and at the same time call out in pitiful and pleading tones, "For God's sake, release me!

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[2] He always took on flesh during maniacal periods, as stated by Dr. Sanger Brown, contrary to usual experience, and at one time attained a weight of 375 pounds.

You are killing me with your abuse! Murder! They are killing me!" His outcry was such that a stranger would naturally imagine some one was being grossly abused. He wrote a letter, signing his sister's name, saying his mother was dying of heart disease, and wanting her son to come home at once to see her for the last time. After violently attacking attendants, necessitating a severe struggle, he would complain bitterly that he had been brutally treated, and at the same time write a letter describing the scrimmage and extent to which he had punished the attendants, adding, "I kicked two in the head and never got a scratch."

At the time of his hearing in June, on a writ of habeas corpus, he appeared in glasses and stated on the witness stand that one of his eyes had been injured by abuse at the hospital and an oculist had expressed fears that it was permanently injured, when, in fact, as I learned from the oculist whom he consulted for glasses, he had not mentioned that his eye was injured in any way. During this period his exaggerations were remarkable. He would simulate bowel trouble and allege soberly he had had over 100 evacuations in a day. The attendant reported that this was done in order to secure liquor or medicine. He alleged he was continuously closely confined 27 days when never more than two passed without his being out in the grounds for exercise. He was markedly kleptomaniacal in his propensities and everywhere he went he would take possession of all movable articles, no matter whether their value was great or small. He would entirely clear the office of pens, pencils, stationery, postage stamps, mucilage, paper weights, etc., when allowed to go into them. Among other things he carried off a bottle of red ink and soaked his hat in the ink. He also decorated it with many ribbons and streamers and wore it about the grounds. He frequently wrote orders and notes and signed the superintendent's name to them, and occasionally the orders were so clever a forgery that they would have been carried out but for the singular nature of the instructions.

In the latter part of June, 1890, X. succeeded, as stated, in being again granted a hearing in the Circuit Court of Cook County on his application for a hearing under a writ of habeas corpus.

When his case came up in court, he took the stand and made a rather telling statement, representing that his wife, from interested motives, wished him out of the way, that he had been brought back from the west by deceptive telegrams in order that he might be "railroaded" into the asylum. (It was true a telegram had been sent him that one of his children was sick in order to induce him to return.) He had met during his two or three days in Chicago before the hearing scores of his former acquaintances, and almost all agreed that he might be a little eccentric, but he was by no means insane, and promised to testify for him. Of the people numbering fifty or more who did testify that he was sane a few really believed it and thought him a much wronged man. Others complied with his request out of good nature. Still others from fear. When the hearing was over, the judge made an order releasing him, though stating at the time that he had doubts about his sanity, and the judge sent word to the probate court having charge of X.'s property that he did not think the control of his property should be restored to the patient. At this juncture X. was, in the eye of the law, a sane man when standing in the circuit court before Judge Collins and a lunatic in the probate court in the presence of Judge Kohlsaat. The judge also explained that the state of public opinion and ignorance of insanity were such that if he remanded X. to the hospital it would have the appearance of an outrage on personal liberty.

After his release the patient began a career of wild and eccentric conduct. He took his own and other young children to theatrical entertainments and kept them out until midnight, while their mothers were at home in alarm. He visited hotels and accumulated bills which he could not or did not pay. He in one instance offered to leave his children as security until he should pay a hotel bill. He was arrested for assaulting a telephone boy and given the alternative of paying a fine or going to jail. He would address ladies at hotels and on the trains who were perfect strangers and ask them to drink wine with him, and would repeat poetry to them. In spite of his antics he was much of the time an amiable and interesting companion. Flashes of wit and entertaining talk flowed from him spontaneously. There was not the slightest sign of mental weakness, but quite the reverse. In accurate memory, logical power and concentration of thought and attention he was unusual. His handwriting was slovenly, but what he wrote was always clear and cogent. He dressed himself in a way that attracted attention, wearing blue and red silk sashes, knotted and hanging nearly to his knees, and embroidered silk shirts and an undue number of scarf pins and other ornaments. One of the strongest evidences of his lack of mental balance was his utter inability to control or realize the effect of his actions, since, if he could have comprehended in the least his real position, he would have felt the necessity of moderation and sobriety, which would in some measure regain the lost confidence of his friends and the public. This he fully appreciated previously in his depressed state, and had repeatedly expressed the idea that he had been doing "a large business on a small capital;" in short had been a great fool, and feared he could never again command any confidence.

X. continued his fantastic conduct until he was again arrested in August on a new complaint of insanity and a new inquest was instituted *de lunatico*. This trial was noteworthy for the brilliant defense he made of himself, conducting his own case, and examining the witnesses in a style that placed the most learned experts at an apparent disadvantage. He furnished racy entertainment to a crowded courtroom of spectators whose active sympathy was with him and in whose opinion the alleged lunatic showed more brains than those who assumed to pronounce him insane. He was perfectly at home in the court room, inimitable in his style of conducting his case, and also displayed for a layman a surprising amount of expert knowledge in reference to insanity. In this trial the fact came out that opinions differed with reference to the form of disease with which X. was affected—a fact of which he made very telling use before the jury. Most of the witnesses claimed that he was a subject of "paresis," while others declined to state the form of disease or gave the opinion that it was *folie circulaire*. Having to examine an alienist who had pronounced him a paretic, he elicited the leading symptoms of paresis—impaired speech, unsteady gait, difference in pupils—and then exhibited to the jury his own perfect enunciation, steady movements and asked the witness to examine his pupils, compelling him to admit they were normal, and challenged him to pronounce a sentence composed of any catch words as well as he himself could, exhibiting his glib enunciation to the jury. To one of the experts who had examined him years before and who now pronounced him insane, he said:

Doctor, did I ever pay you for examining me? I do not recollect about that, but I'll do so now if you will prove that your services were worth anything.

In another case X. said to one of the experts:

Doctor, I suppose it would be impossible for me to convince you that I am a sane man, would it not?

Yes.

Well, then I won't try.

With one medical witness he had this conversation:

Don't you think that Dr. ———, who had me in charge from December until March last, had a better opportunity to notice my symptoms than you had?

He may and may not have had.

Dr. ——— says I have circular insanity. Is that so?

No; in my judgment I think not.

Then I have got you and Dr. ——— against each other.

This difference of opinion enabled X. to score an effective point with the jury and with the public.

Fig. 3.—Exalted state. Second cycle, aged between 34 and 35 (June, 1890).

Being myself subpenaed as a witness, I testified as follows:

I think that X. is now in a state where his insanity is not easily recognized. However, there are things which convince me of its existence. I understand that he is by nature high-minded and truthful to the average degree. From what I have learned of him of late he is now the reverse of all this. His judgment is seriously impaired. While his mind is shrewd and cunning, and even brilliant, and his memory accurate in many matters, he fails in the exercise of ordinary judgment or common sense. X. does not at first sight appear to have illusive ideas, but on closer inspection he is seen to have these, as for instance, in his extravagant notions as to his property and as to the light he is held in by others. He told me, for instance, within a few days that he was going to run for congress this fall; that he was going to England as an envoy for the directors of the World's Fair; that he was to be attorney for the board of education; a member of the library board; and was also to be appointed on the board of trustees of the institution at Kankakee.

The inquest *de lunatico,* after lasting three or four days each week for three weeks, was terminated by the act of the judge in dismissing the case. On this occasion I had been recalled for cross examination, and, immediately on entering the courtroom saw that there had been a change in X.'s condition. He was now quiet and moderate in his speech and action. His former jaunty, jocular, "larky" air and disposition had disappeared and he seemed precisely as he was at the time when I discharged him the preceding March.

NORMAL INTERVAL.

I readily admitted that I saw nothing outwardly insane in X. at that time. The court, after this testimony was finished, stated that he would now bring the case to a close by withdrawing a juror, as he believed no reasonable person would entertain the idea that X. was insane after hearing his brilliant defense of his case.

At the time when this remarkable trial came to an end a great amount of interest had been aroused in favor of X., and it had been arranged to hold a public meeting for the purpose of endorsing him in his "fight for liberty" and of raising funds to assist him, if it became necessary to do so.

The trial came to an end opportunely for the patient, for it would have been impossible for him to appear in the character of a sane man very much longer. His phase of depression was now coming on rapidly and he went home from the courtroom to remain there, scarcely leaving the house for several months. He was profoundly despondent and possessed with the idea of some impending calamity. His friends consulted me as to the propriety of sending him to some asylum and stated he was in a condition of misery and suffering pitiful to behold. He gave no attention to business, but sat in the house. When there was any call at the door he would hasten to be the first one there, stating that he was ready, or wanted to meet some (as he thought) approaching disaster. It seems probable from his conduct that he had delusions of persecution. Here I may mention that it was usual for him to become slowly more stupid and inactive, to lie in bed, to keep his room dark, to be extremely filthy in his habits, to refuse food and to talk of suicide.

This condition continued until about March, 1891, when X. was again for a short time rational. He appeared again in public and opened an office for the practice of law. But the swinging of the pendulum to the opposite extreme was again begun, and the story already detailed of weeks and months of wild, fantastic conduct was again repeated with slight variations in detail.

THIRD MANIC-DEPRESSIVE CYCLE.

Through the month of March and up to April 28, 1891, when he was again found insane in court, X. produced a succession of sensations. He was ejected from hotels. He entered his wife's apartments through a window and carried off a quantity of jewelry. He stood at street corners and presented bouquets to ladies passing by. He had a violent scuffle on a street car with a gripman; appeared in a barber-shop minus boots, hat and coat; was obstreperous in barrooms and insisted on every one drinking with him.

To the first medical witness testifying to his insanity in the trial of April, 1891, X. said:

Dr. ———, I met you when you testified against my client

> in the case of B. vs. C. in 1877, didn't I? You say I am insane. Can you point out any case of insanity similar to mine, and can you really tell whether I have paretic mania, or circular insanity, or a sore throat, or corns? You doctors are amusing cusses. You bury your mistakes, while those of us lawyers are filed for record.

The witness replied:

> I'm sure you are insane, Mr. X., but I can not classify your case. It's constitutional insanity.

A verdict of insanity was now rendered, but two philanthropists who had become interested in X.'s case and thought they could care for and benefit him, interceded with the court to be given charge of him, and were allowed by the court to assume this responsibility. The sequel to the efforts of these benevolent gentlemen was what might have been expected. Within two or three days X. was again in the county jail and applied again for a writ of habeas corpus, but was refused by several judges in succession. He was now compelled to return to the Detention Hospital to await his transfer to some institution for the insane. It was for several weeks, however, found impossible to secure his admission to any public or private asylum, though application was made to a large number. It became impossible on account of his violence longer to care for him properly in the Detention Hospital and he was transferred to the county jail and finally to the Cook County Asylum for the Insane at Dunning, and was there during some months in a maniacal state. He gradually improved and was allowed to go about with an attendant on the country roads, where he amused himself by playing Robin Hood and "holding up" every person he met with a demand for cigars, money or plunder of any sort.

NORMAL INTERVAL.

He now gradually became more rational and quiet and was finally released "on probation" October 21. During the winter of 1891-1892 X. was again in a depressed and inactive state, again approximating his natural condition in the early spring, and passing through a customary normal interval.

This was followed by a gradual return of the maniacal cycle.

FOURTH MANIC-DEPRESSIVE CYCLE.

During the summer of 1892 a succession of his customary pranks and depredations attracted public attention, furnishing amusement or annoyance, as the case might be. He was arrested for disorderly conduct and for disturbing the peace, and appeared in absurd or equivocal situations and adventures in towns and cities of Illinois and surrounding states, especially gaining notoriety by his exploits at the National Republican Convention at St. Paul. In the summer or fall of this year X. was again committed to the Cook County Asylum for Insane, passing through the usual maniacal exacerbation. When his condition had become more quiet he one day made his escape with the assistance of a woman who drove through the grounds and took him into her carriage. This escape was planned by assistance of outside persons and a disguise furnished X. consisting of a woman's clothing. The winter of 1892 and 1893 appears to have been uneventful, and apparently in the spring of 1893 the usual "March madness" did not occur. X. went to Colorado in the summer of 1893 and made special effort to control himself with a view to regaining control of his property. which was still in the hands of a conservator. He was at this time more mildly maniacal, though, while stopping at Colorado Springs, he attracted much attention and at times people avoided the Pike's Peak cog-wheel railroad trains when he was aboard and the hotels and public places where he disported himself. From this time there was greater irregularity in the cycles and the normal intervals were less marked. At the meeting of the American Medico-Psychological Association in Chicago in June, 1893, he attended one of the sessions and requested to be allowed to address the association, and while sitting in the meeting fell asleep in his chair. He had grown very gross and corpulent. There appears to have been from this time a more decided moral and mental deterioration. Though he still at times was brilliant and able to carry on spasmodically a law business consisting largely of habeas corpus proceedings and attempts to release patients in asylums, he never equaled his former achievements, and evidence of degeneration was shown in many acts, foreign to his normal self, of an indecent or quasi-criminal character.

(To be continued.)

A CASE OF PARASITIC HEMOPTYSIS OR INFECTION WITH THE DISTOMA WESTERMANII.

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The value of the examination of sputum for tubercle bacilli depends almost solely on their presence, and it is generally recognized that repeated failure to find them does not exclude the existence of tuberculosis in the lungs.

This fact is intimately connected in its relation to differential diagnosis, with the characteristics of the sputum in parasitic hemoptysis, for in this disease some of the general symptoms of tuberculosis, such as emaciation, general weakness and anemia, are usually associated with the continued expectoration of blood-stained, mucopurulent material. There are obvious reasons, especially applicable to certain parts of the United States, why parasitic hemoptysis should be excluded in cases suspected of being tuberculous, and in which the sputum is free from tubercle bacilli, although it continuously possesses various admixtures with blood.

This is illustrated by the following account of a case admitted to my service in the St. Vincent's Hospital of Portland, Oreg. It is, so far as I am aware, the first instance of parasitic hemoptysis observed on this continent.

History.—A Japanese man, a native of the province of Okayama, was admitted Nov. 23, 1903, suffering from weakness and persistent hemoptysis. He arrived on this continent the preceding April and had been employed by the fish canneries of Vancouver and Victoria during the summer.

His first attack of hemoptysis occurred July 17, 1903, while rowing a boat against a strong tide in the Columbia river; four or five ounces of blood, described as bright red, escaped by coughing. A cough with blood-stained expectoration continued after this attack, with slight intermissions, until he applied for admission to the hospital. Friends accompanied him to the hospital, desiring assurance that he did not have tuberculosis.

Examination.—At the time of admission he had lost some weight and complained of slight transient pains in both sides of the chest, in front and behind, and varying from day to day in location. On examination cogwheel respirations and a hemic murmur were found; the chest was well developed. Although the chest was carefully examined at different times during his stay at the hospital, both by myself and by other members of the attending staff, the few alterations mentioned were not supplemented.

During his stay in the hospital blood was always found in the sputum; for a time it resembled pneumonic sputum, later a microscopic examination was necessary to find the blood. At times there were found little yellow particles in the sputum like plugs of bronchioles; they were frequently tipped at one end with clotted blood. Repeated examinations of the sputum were made for the tubercle bacilli with uniformly negative results. There were no accounts of tuberculosis in the family history and he had never been sick before; with exception of gonorrhea several years before, from which recovery was prompt.

The ova of the distoma were finally found in the sputum and their nature confirmed by Dr. C. W. Stiles of the U. S. Bureau of Animal Industry; Charcot-Leyden crystals were also abundant.

He had no temperature, ate and slept well and gradually so recovered that longer retention in the hospital was impossible. The hemoglobin was 70 per cent. (Tallqvist) and examination of the corpuscles of the blood revealed no noteworthy alterations in number or character.

There are recorded three instances in which observations have been made in this country of pulmonary infection in animals with parasites of this variety, the first by Ward[1] in a cat, the second by Kellicott and Ward in a dog, the third by Payne and other members of the Bureau of Animal Industry in hogs. These observations have formed the basis of a number of publications, of which those by Ward, and by Stiles and Hassall, deserve special mention. The infection in hogs was observed in Cincinnati where, for a period in 1898, 1 per cent. of the animals inspected were found infected. The flukes found in the cat concerned an animal of Ann Arbor; those in the dog were found in Columbus, Ohio.

In other countries, other observers, including Kerbert, who named the parasite after Westerman, have found it in the lungs of the tiger. In Japan, dogs and cats both serve as final hosts. Although there are differences noted in the descriptions of this trematode, as it occurs in man and animals, the reasons for considering that separate species have been described are as yet insufficient. Likewise the Asiatic and American forms are believed to be identical, although, as stated by Stiles, a zoologic error may be made, in so doing, in the interests of hygiene.

There is every reason to believe the infection in the case here reported was contracted in Japan. The disease is endemic in the province Okayama from which he came; in fact, it was to this province that Yamagiwa and Inoui were sent by the Japanese government in 1890 to study the disease.

Most of the writings concerning the disease have been by the Japanese, and unfortunately they are, to a large degree, in that language. Two of the articles by Yamagiwa,[2] one by Katsurada,[3] and the recent one by Taniguchi,[4] however, are in German, and contain references to the accounts of many of their countrymen.

As at present understood, the *Distoma* or *Paragonimus westermanii* is responsible for two widely different forms of disease in man—the pulmonary and the cerebral. In both, cysts are likely to be found as the chief anatomic change. Those in the lungs are usually in the upper lobes and near the surface where they may form brownish or darker projections. Their shape is described as flat (Yamagiwa) or round (Katsurada), and their size about that of the tip of the little finger. When they contain parasites there is also a viscid brownish-gray fluid, and the lining is rough, ragged or wrinkled. They rarely contain more than a single worm in man. Their firm walls measure a millimeter in thickness, and are formed solely by the tissues of the host.

Participation of the bronchi and bronchioles in the formation of such cysts by dilatation was demonstrated by Katsurada in dogs and cats, but not in human lungs, although these channels always lead into the cysts. In the lungs so infected a bronchitis occurs with a mucopurulent and hemorrhagic exudation, as well as various forms of pneumonia, depending on the stage of the infection and on repeated infection. The nodules forming about the ova are said to simulate chalicosis, and in one case (Case 1 of Katsurada's article[3]) the lung was very cirrhotic from the disease; bronchiectasis and emphysema may be consecutive changes. Nodules inclosing ova and resembling tubercles may occur in the pleura.[5]

MEASUREMENTS OF OVA OF THE DISTOMA WESTERMANII.

FROM KATSURADA.

LENGTH.	BREADTH.
102.5	52.5
100.0	66.3
97.5	52.5
97.5	56.3
95.0	67.5
95.0	55.0
95.0	55.0
92.5	60.0
92.5	57.5
91.3	55.0
91.3	52.5
90.0	55.0
88.8	57.5
87.5	57.5
87.5	56.3
AVERAGE.	
93.5	57.0

FROM MY OWN CASE.

LENGTH.	BREADTH.
99.7	69.0
99.5	63.7
95.4	57.0
94.5	61.5
94.5	55.5
94.5	49.5
93.7	53.2
93.0	55.5
93.0	55.5
93.0	54.0
93.0	60.0
93.0	49.5
91.5	58.5
91.5	52.5
91.5	54.0
91.5	55.5
91.5	54.0
90.7	52.5
90.0	57.0
90.0	49.5
90.0	55.5
90.0	52.5
90.0	52.5
88.5	49.5
88.5	61.5
88.5	51.0
87.0	58.5
87.0	54.0
87.0	60.7
86.2	48.0
85.5	52.5
AVERAGE.	
91.33	55.18

Considerable interest is connected with the origin of cysts in the brain on account of the degree to which the softening following embolism is responsible for their formation. They are described as varying in size from a grain of rice to a pigeon's egg, or larger, and communicating.[6] In one case no cavities occurred, but instead dark fibrous nodules inclosing ova.[2]

In the cerebral cysts, or more correctly, pseudocysts, both adult worms and ova have been found. In 11 cases of parasitic hemoptysis, in which Inoui observed cerebral symptoms, there were six in which the unilateral spasms were in some cases accompanied by paresis, two with general epilepsy, two with hemiplegia and one with psychic blindness.[4] In the case reported by Taniguchi, in addition to the usual symptoms of epilepsy, those of athetosis and chorea were present. His anatomic study of the brain lesions led him to believe the walls of the cysts were, in part, formed by the vessels by which embolism occurred.

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[1] For bibliography see Notes on Parasites 51.—The Lung Fluke (Paragonimus Westermanii) in Swine, and Its Relation to Parasitic Hemoptysis in Man. Sixteenth Annual Report, Bureau of Animal Industry, U. S. Dept. of Agriculture, 1899, 560, by Charles Wardell Stiles and Albert Hassall.

[2] Virchow's Archiv, 1890, cxix, 447, and 1892. cxxvii. 446.

[3] Ziegler's Beitrage, 1900, xxviii, 506.

[4] Arch. f. Psychiatrie u. Nervenkrankheiten, 1904, xxxviii, 100.

[5] In Miura's description of such nodules in 1899 (Virchow's Archiv, cxvi, 310), the ova are mentioned as being those of the common liver fluke; this has been corrected by subsequent writers.

[6] I have been unable to find any account in Miura's article of the cerebral infection referred to by Stiles and Hassall.

In other parts of the body either the ova or worms have been found in the liver, orbital cavity, lower eyelids, scrotum, mesentery, diaphragm, omentum and in the contents of the intestine.

Thirty-one of the ova were measured by Dr. E. R. LeCount of Rush Medical College, Chicago, care being taken to select such as were yet unbroken.[7] The sizes (see accompanying table) were found to correspond fairly well with the measurements given by most authorities, particularly those of Katsurada.

ILLEGITIMACY AN ECONOMIC PROBLEM.

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> "To such grievances as society can not readily cure, it usually forbids utterance on pain of its scorn; this scorn being only a sort of tinseled cloak to its deformed weakness."—Currer Bell, quoted by Shirley.
>
> "The duty of Christian society is to find its work and to do it."—Carlyle.

"Society is organic; that is to say, it is like an organism, in that it is composed of interdependent parts performing functions essential to the life of the whole."[1] The conservation of the race when economically considered, begins with the personal unit, which has both known and unknown values. The unknown unit, plus environment and heredity, represents a known quantity, which becomes a factor in the product of society. Environment and heredity are always subject to the qualifications of "accidentals," which may be either voluntary or involuntary.

"Clear knowledge is confused when we can not distinguish the parts and qualities of the thing known, and can only recognize it as a whole."[2] Thus it follows that it is the "accidentals" which are the confusing factors in our political science. "The life of society may be conveniently divided into eight parts, called life-spheres, viz.: (1) language, (2) art, (3) science and education, (4) family life, (5) social life in the narrower sense, that is, the intercourse of friends and associates; (6) religious life, (7) political life, (8) economic life."[2]

The problem of illegitimacy has a vital position in six of the eight spheres. The personal unit may or may not be privileged a volitional environment; a specific example of the first would be that of the child which chooses a new home with foster parents and a changed society life before his sexual education begins. The resultant changes will be commensurate with the fixation processes of the environment, and the contrast of the two possibilities will be less or greater as the heredity is paralleled or opposed. Add to this the compliment of accidentals, which is subject to the same law as heredity.

The example of denied volitional environment will, as a rule, trend toward a phase of life having the least resistance, which has, in most instances, been made by heredity. The possibility of accidentals that parallel the hereditary taints is greatly increased.

Heredity may be either primary or secondary to environment. If primary, then it follows that the heredity had its beginning in the class of accidentals. To exemplify, it is sufficient to instance the accidentals which occur in a line without taintured chastity when amatory passion is causative of procreation out of wedlock.

The certainty of heredity in its primary form, causing an environment for the succeeding generation, is well established, and "it is a general biologic law that the lower the position of an animal in the scale of being, the greater its capacity for the reproduction of its kind."[3] "Hereditary tainture existing in an environment of its kind, is procreated through succeeding generations in the case of bastardy to an astonishing degree," as is graphically shown in the tables of Spitzga[4] and of Dugdale.[5]

The term "accidentals" is here used advisedly and for convenience, there being no English word to distinguish—in contrast to the woman who professionally sells herself—the one who lapses through imprudence, ignorance or passion, and afterward recovers and leads a reputable life. To this class is assigned all women of good heredity, good environment and heretofore unquestioned chastity, who yielded to temptation from causes that were immediate and seemingly insuperable.

Illegitimacy in its generic sense is an inadequate term, referring specifically to the state of being born out of lawful wedlock. In this paper the term is used to designate a vice, in which is the implication of a child, a mother, a father, the relatives, friends and community. It is the purpose of social economics to apply principles to problems connected with the growth and well-being of organized society.

It is the intent of this study to submit statistics and other material which can be used for inductive and deductive reasoning toward the formulation of applied principles for a subject which can be said to have substantially a very meager literature and comparatively few investigators. The difficulties that confront the student of illegitimacy are evident to all who have given the subject but little attention.

The general rules[6] of method in composing any discourse require, first, that nothing should be wanting or redundant; second, that the separate parts should agree with each other; third, that nothing should be treated unless it is suitable to the subject or purpose; fourth, that the separate parts should be connected by suitable transitions.

It is impossible to exclude the evidence of statistics in a scientific study of illegitimacy, and it is impossible to include them for all geographical divisions. There are in the United States 53 states and territories (including the Hawaiian Islands and Alaska). Of this number, 39 have state boards of health. Letters of inquiry for statistics relative to illegitimate births were sent to every secretary. Replies were received from 25 of the 39; 19 replied that there were no statistics taken. Many do not have any record of births, while some do not keep even death records.

Six states—Connecticut, Minnesota, Rhode Island, North Dakota, Indiana and Michigan—have records. In every instance the figures were affirmed by the secretaries to be unreliable, therefore of little value excepting for yearly comparisons of state averages. The secretary of state for Michigan, Hon. Fred M. Warner, estimates that probably only about two-thirds of the total number of actual births are being returned. In Michigan, during 1900, only 322 illegitimate births were recorded, the total of all births being 43,699. I was able to collect with little effort from seven sources 466 illegitimate births for 1903 in the city of Detroit.

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[7] The stage micrometer employed (Bezn. Hausser et Cie, Paris) contains 100 lines to one-fifth of a millimeter.

* Read before the Wayne County Medical Society, Detroit.

[1] Ely: Political Economy, pp. 5-6.

[2] Leibnitz: Jevons' Lessons in Logic, p. 55.

[3] McKim: Heredity and Human Progress, p. 120.

[4] Spitzga: The Legal Disabilities of the Natural Child, Alienist and Neurologist, October, 1899.

[5] Dugdale: Table 5, The Jukes, p. 27.

[6] Jevons' Logic, p. 202.

Eight letters were sent to the registrars general of provinces in the Dominion of Canada, and six replies were received, Ontario being the only province that kept records.

I am indebted, as are all who find interest in the statistics submitted below, to the deputy registrar general of Ontario, and the adequate system of record taking that prevails in this province.

TABLE I.

Total of all births for 1902	47,796
Total of illegitimate births for 1902	819
Total of illegitimate births, male, for 1902	418
Total of illegitimate births, females, for 1902	401
Ratio of illegitimate births per 1,000 of all births	17.1
Ratio of illegitimate births per 1,000 of all births in 14 cities	50.9
Ratio of illegitimate births per 1,000 of all births in country alone	.13

TABLE II.

The four counties having the highest illegitimate birth rate compared, showing the city and the country ratios:

York County—	
Country ratio	23.9 to 1,000
City of Toronto	53.5 to 1,000
Carleton County—	
Country ratio	6.1 to 1,000
City of Ottawa	104.7 to 1,000
Middlesex County—	
Country ratio	6.5 to 1,000
City of London	50.7 to 1,000
Frontenac County—	
Country ratio	10.9 to 1,000
City of Kingston	59.4 to 1,000

TABLE III.

A comparison of the illegitimate birth rates, cities in England, Ontario and Scotland:

London, England, in 1889	38.0 per 1,000
Birmingham, England, in 1889	45.0 per 1,000
Liverpool, England, in 1889	58.0 per 1,000
London, Ontario, in 1902	50.7 per 1,000
Toronto, Ontario, in 1902	53.5 per 1,000
Kingston, Ontario, in 1902	59.4 per 1,000
Ottawa, Ontario in 1902	104.7 per 1,000
Glasgow, Scotland in 1887	83.0 per 1,000
Edinburgh, Scotland in 1887	85.0 per 1,000
Dundee, Scotland, in 1887	104.0 per 1,000
Aberdeen, Scotland, in 1887	106.0 per 1,000

The second rule of method is observed in deduction only, and the remaining rules are observed as closely as is consistent with the peculiar nature of the subject.

The economic problem before the practitioner of medicine, philanthropic worker and sociologist is that of prevention and cure of this macula of unchastity. For the purpose of securing unbiased premises, available literature was consulted, and thirty letters were addressed to experienced workers in widely distributed parts of the country, asking for answers to the following questions. The references and replies, as far as possible, are used, and credit given for the same in the subjoined bibliography:

1. What do you consider the chief causative factors of illegitimacy?

2. What practical preventative measures would you suggest for illegitimacy?

3. In the treatment of illegitimacy as a sociologic evil, would you advise the utmost personal secrecy of the individuals involved?

4. What is the best care of the bastard child for the economy of society, considering first the child, second the mother, third the father, fourth the relatives, friends and local community?

5. Is the lying-in hospital that extends care especially to illegitimate mothers a means of encouragement for the crime? (b) Are such institutions prophylactic against homicide, infanticide and suicide?

6. To what extent can the physician act as a safeguard to society in cases of illegitimacy?

7. In your experience, what percentage of illegitimate mothers are restored to their former position in society? (b) And what percentage go on to greater degradation?

The chief causative factors of illegitimacy are:

1. Insufficient instruction in the phenomena of sexual life, particularly of girls.[7 8 9 10 11 12]

2. "Incontinence on the part of the male, combined with the passive submission of the woman," with mutual passion prevailing.[13 7 14]

3. Faulty guardianship.[8 16 14]

4. Seduction under promise of marriage.[15]

5. "Lack of means to establish a home" and other impediments to marriage.[11]

6. The general servility of women and aversion to marriage on the part of males, and a prevailing notion that hard work is disgraceful and that good clothes are a necessity.

7. The remoter causes of heredity and environment have been proven to be important considerations[16 17 18]

8. *Conclusion.*—Leffingwell[16] has tersely summarized the causes in the following: "Illegitimacy is a phase of social phenomena produced by conjoint action of several causes. Its variance in the different localities depends on the force and number of the factors there present."

Pertinent to the subject are the words of Shakespeare: "Find out the cause of this effect, or rather say the cause of this defect. For this effect defective comes by cause."[19]

The aforegoing enumeration of causes alone suggest inferential preventative measures, which are tersely expressed by Professor C. R. Henderson[20] as "all the positive educational, moral, religious agencies which raise ideals, teach young girls their nature, dangers and duties, and give them a rational way of spending their leisure." To this must be added "early marriage" for the passionate.[21 22 15]

Leffingwell[23] says: "The influence of religion is one of the most powerful agencies against unchastity," and Dr. Howard A. Kelly affirms that the "Christian standard is the solution of the whole problem" of unchastity, as is expressed in the quotation: "Mortify, therefore, your members which are on the earth; fornication, uncleanness, inordinate affection, evil concupiscence and covetousness, which is idolatry, for which things' sake the wrath of God cometh on the children of disobedience."

All these excellent preventative measures must fail, and do fail, as statistics prove, for want of direct and specific application in much the same way as the physician does who prescribes water to stop hemorrhage, without informing the ignorant regarding the necessary tem-

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[7] Dr. Joseph B. DeLee, Chicago, private communication.

[8] Hastings H. Hart, LL.D., Chicago, private communication.

[9] Dr. Chas. H. Bushnell, Chicago, private communication.

[10] Adjutant E. Bailey, Los Angeles, Cal., private communication.

[11] Dr. W. P. Manton, Detroit, private communication.

[12] Dr. Denslow Lewis, Chicago: Limitation of the Venereal Diseases, Medicolegal Jour., June, 1903.

[13] Dr. J. J. Mulheron, Detroit, private communication.

[14] Dr. Charles Pike, Philadelphia, private communication.

[15] Mrs. H. C. Sterling, Detroit, private communication.

[16] Leffingwell: Illegitimacy, pp. 64-85.

[17] Dugdale: The Jukes.

[18] Ernest Bicknell, Proceedings of National Conference of Charity, 1896, p. 223.

[19] Hamlet, Act. 2, Section 2.

[20] Prof. C. R. Henderson, University of Chicago, private communication.

[21] Mayo Smith: Statistics and Sociology, p. 81.

[22] Dr. J. H. Carstens, Detroit, private communication.

[23] Leffingwell: Illegitimacy, conclusion 7, p. 86.

perature, mode of application, etc., or the text-book of medicine that dismisses the treatment of a disease after stating that opium is indicated. The merest tyro in medicine or in social economy knows the value of the remedies in a general way. But this is probably parallel knowledge of that possessed by the man who says—I know opium relieves pain.

Is it not enough to say to the boy or girl—here is the moral law, hear it, read it, obey it, for it is the best advice in all phases of your life? The sexual nature must be plainly outlined by personal interview and confidences secured. Now is the time when profoundest wisdom and most careful judgment is demanded. The prophylactic suggestions must be given with the utmost care, and control taught through the specific means which is most directly applicable.

The question of utmost personal secrecy of the individuals involved admits of discussion. The answers received show that 75 per cent. favor secrecy. The following are among the reasons assigned: (*a*) Secrecy at this time is dealing with the fruits and not the root of the evil.[7] (*b*) Publicity causes loss of self-respect, and thus removes the chief bar to prostitution. It also serves to advertise the woman before men as susceptible material for extended liberties.[15] (*c*) These unfortunates have no chance in life with public opinion against them, for the disposition of society is relentless and unforgiving. (*d*) The return to society is made a personal responsibility with the mother when her secrets are preserved.[10] (*e*) The bastard is made to wear a lifetime label, which has the weight of personal guilt, and friends to whom not even hereditary implication can be imputed are disgraced, and "Good name, in man and woman . . . is the immediate jewel of their souls."[24] (*f*) Publicity is frequently the most active goad to the acts of abortion, suicide and infanticide. It is said[25] that "in order to lessen the frequency of abortion and remove some of its temptations, regulations prevail in some of the large lying-in hospitals of Germany, whereby each patient is known only by a number given her on entering, a duplicate of which is written on a sealed envelope in which she has inclosed her name, the address of friends, or any item she may choose. This is returned to her unopened on her departure from the hospital without mishap. The child is taken with her, or may remain in a ward of the state at her option."

Among the reasons given for publicity are the following: (*a*) The fear of publicity is a wholesome safeguard as far as the young man is concerned. The young woman should tell her parents, if they are people of any character, for the reason that if she does not do that she must lie from first to last, and you can not build character on a lie.[8] (*b*) Evils thrive in the dark.[14] The arguments for and against publicity are significantly strong, and it is evident that neither absolute secrecy, as is practiced in some of the German hospitals, nor the full publicity which is given the legitimate birth, can be best for all concerned. The following conclusions are drawn: The question of secrecy should be subservient, first, to the best interests of the child. It is the one most wronged, and should receive every advantage of all possible reparation. It is a human soul, and must outweigh all other results of the illicit act, such as the personal disgrace and the insult and injury to society. To society the mother is a unit of depreciated values, and is thereby the second most important result of illegitimacy. The best care of the child and mother is the best care for every phase of the problem.

In the event, then, of publicity serving the means of justice for child and mother by compelling the father to do his duty, whatever this may be, under the circumstances, secrecy would here be an injustice. The laws of Illinois[26] provide that the father may be compelled, if able, to make provision up to the sum of $550.

When a woman's parents are deceased or are individuals without character, or when it can be learned that they would cast off their erring child, and when the father of the child is a worthless wretch, absolute secrecy should be imperative. The resident of the rural district, town or small city will require secrecy more than the resident of the large city.

I believe most emphatically that the causes of illegitimacy should be published widely, and all possible emphasis placed thereon; but in the great majority of instances the results should be kept a profound secret.

The best care of the illegitimate child is that by its parents, providing they become man and wife. If practicable, every just means should be used to bring about this union. Of the answers received, 94.3 per cent. advise adoption into childless homes in from one to twelve months after birth; 75 per cent. urge adoption when the child is about one month old. Prof. C. R. Henderson of Chicago University[20] forcibly says: "Foundling asylums, baby farms and agencies which take babies from their mother's breast, and ask no questions, are murderers wholesale." This statement may seem unwarranted and altogether too radical, but on examination of certain records a mortality of 98 per cent. was shown. Leffingwell[27] affirms that in civilized England illegitimate bastard children are more than four times as liable to "accidents" as their legitimate kindred, and the same writer quotes the registrar general, who pointed out that during the first year of life the mortality of legitimate children was about 205 per 1,000, while the illegitimate rate was 418 per 1,000.

A most interesting field of investigation is suggested to me, viz., that of the milk supply from the breasts of illegitimate mothers. The following tentative theories are advanced on evidence thus far examined. The lacteal secretion of the illegitimate mother is markedly uncertain. The quantity is lessened and the quality impoverished. A number were found to have almost total cessation of secretion before the first three months were past. The supposition advanced is that involuntary nursing is a leading cause, supplemented by the disturbed mental tranquility. It is observed that abscess of the breast during the nursing period in this class of mothers is almost unknown. If a tentative conclusion can be made and proved, it will show that the illegitimate mother is incapable, physically, in the majority of instances. When there is added to this financial and social difficulties, the situation is well-nigh impossible. There is also a great probability that the illegitimate child, when old enough to be taunted about his disgraceful birth, will promptly despise his mother. The continuance of the illegitimate child in an environment parallel to its heredity is usually a grievous error, as shown by Dugdale[28] in his study of the Jukes. Of 535 children born, 106 were illegitimate, a ratio of 235 per 1,000. The members of the family that changed their environment at a sufficiently early period were able in most instances to amend hereditary habits.

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[24] Shakespeare: Othello, Act. 3, Section 3.

[25] W. M. Capp, M.D.: Medical and Surgical Reporter, Oct. 11, 1890.

[26] Hastings H. Hart: The Physician and the Illegitimate Child, Illinois S. M. A., 1902.

[27] Leffingwell: Illegitimacy, pp. 70 and 73.

[28] Dugdale: The Jukes, p. 26.

The conclusion is drawn that the best care of such a child is adoption within one year, or better, one to three months, into a childless family, which has been investigated by a government agent, and by a responsible representative of the child.

The care that is best for the child is, as a rule, best for the mother, the father, relatives, friends and community. The early adoption of the child affords the mother every opportunity for restoration to her former place in society, providing secrecy has been maintained. She is thus able to obtain opportunities for marriage that would be impossible excepting with the lowest of men, were the sign of her fall with her. I have a record of eleven women, nine of whom are living in Detroit and two in the country. All of these are honorable wives and good mothers. All but one informed the prospective husband of her former misfortune, and in each case the man expressed himself as glad that the woman did not deceive. The one woman who did not confide her secret is in great fear of it being revealed. It is very true in this application that "hope deferred maketh the heart sick." If a woman in the sorest trial of her life can entertain no hope for her future, the liability to greater degradation is very certain.

Sanger,[20] in his "History of Prostitution," says that 57 of every 100 children born by women who are now prostitutes, were fruit of promiscuous intercourse, and that one-half of the prostitutes of New York City have given birth to children, and more than one-half of these are illegitimate.

The committee of the New York State Senate,[20] appointed to investigate prostitution, reported in 1892 that there were 50,000 prostitutes in New York City. Of this number some 12,500 had given birth to illegitimate children. These facts and figures indicate most pathetically the inefficiency of the method used by society for the care and restoration of its unfortunate illegitimates.

It is a frequently heard accusation that lying-in hospitals encourage crime. If such institutions are agencies for houses of prostitution, or if the management is by unprincipled and immoral individuals, the reputation is justly given. But the idea that honestly managed lying-in hospitals are causative of this evil is preposterous. It is just as logical to say the physician who cares for an illegitimate mother during her confinement is encouraging the evil by his professional care of its result, not of its cause.

Dr. Joseph B. De Lee[7] says the argument is ridiculous, and asks the question, Does the general surgical hospital increase the number of street brawls with cracked heads?

The contemplation of a child, much less that of a hospital, never enters the minds of the child's parents at the time of their fall. It is always an afterthought.

It is one of the highest privileges of the lying-in hospital to be the means of prevention for infanticide, suicide and homicide. An average of 50 per cent. of all applicants solicit abortion or have attempted the same.[15] The physician, more than any other public servant, is the guardian of the sexual morals of the communtiy.[26]

Each physician should consider it his privilege and duty to carefully study the social economics of illegitimacy, so that he can act intelligently in giving advice that is protective to life and society.

The percentage of restorations will depend to a large degree on the class of girls. Dr. Charles Pike[11] and Adjutant E. Bailey[10] estimate that 90 per cent. of all cases where it is a first offense are restored under proper treatment, while about 5 per cent. pass on to a greater degradation.

831 Fort Street, W.

ENORMOUS MIXED TUMOR OF THE PAROTID REGION

REACHING TO THE CLAVICLE AND WEIGHING ABOUT SEVEN POUNDS; OPERATION; RECOVERY.*

W. W. KEEN, M.D., LL.D.

Professor of the Principles of Surgery and of Clinical Surgery, Jefferson Medical College.

PHILADELPHIA.

The Patient.—E. M. B., aged 65, was admitted to the Jefferson Medical College Hospital, Jan. 2, 1904, at the request of Dr. H. M. Righter. Height 5.7 feet, present weight 152 pounds weight in 1890, 250 pounds.

History.—His father died at 49 of "dropsy of the brain"; his mother at 56 from pulmonary tuberculosis. One sister also died of the same disease and another after some gynecologic operation; one brother died from accident; one sister is living and well. Tuberculosis exists both in his father's and in his mother's families, but he does not know the precise individuals who have suffered from it. He is married and has five children, all of whom are living. He had varioloid when he was 22 years old. He has suffered from hemorrhoids and from neuralgia of the face. He was discharged from the Army in 1863 on account of "dropsy of the kidney." He drinks beer moderately; smokes a pipe almost constantly.

Development of the Tumor.—In November 1880, when shaving, he noticed a small lump in the right parotid region. It did not cause him any pain, nor was it tender at first. By 1883 the tumor was large enough to attract the attention of others. By 1892 it had grown to the size of a large walnut. At this time it was manipulated considerably by a physician, and from this he dates its rapid growth. He states that it has doubled in size during the last two years; has never noticed any effect on the flow of saliva. On Dec. 7, 1903, at the inferior border, the tumor opened and there was a forcible discharge of a fluid containing blood. He states that it broke with such force as to cause a hissing sound at first. About two pints of fluid escaped. For two years he has not left his house on account of the annoyance he experiences from everybody's looking at him.

Examination.—On admission there is noticed on the right side of the face and neck an irregular nodular tumor (Figs. 1 and 2) starting just in front of the ear, passing over the lower jaw, under the chin, and extending about 5 cm. to the left of the median line. It extends a little below the level of the clavicle and passes up the back of the neck not far from the median line. The circumference of the tumor horizontally is 63 cm. and vertically 67 cm. The horizontal diameter is 21 cm. and the vertical diameter 27 cm. The present size of the tumor, when the photographs were taken, is markedly less than it was before it broke.

The tumor does not seem to be deeply attached to the larynx or to any of the bones in its neighborhood, the jaw, the mastoid, or the transverse processes of the vertebræ. It is most firmly attached in the parotid region, but below this it can be swung through a considerable arc in all directions. The skin is movable over the tumor; its blood vessels are dilated, and its surface is rough, and at points ulcerated. At the lower border is an opening about the size of a lead pencil. Considerable fluid discharge constantly escapes from this opening. The fluid is brownish yellow, thin and watery. The tumor is composed of nodular masses of greater or less size, many of the larger ones have smaller nodules arising from them. They are elastic, yet firm. Portions of the tumor are evidently cystic; others

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20. Sanger: History of Prostitution, p. 676 and addenda.

* Read before the College of Physicians of Philadelphia.

are either fibrous or cartilaginous. There are certain areas of tenderness over it. He has rarely had any pain excepting when it was distended by fluid before its rupture. The tumor is very heavy and drags on the face and neck so much that both for support and also to retain dressings over the sinus at the lower portion, he slings it by a bandage over his head.

Examination of the Body Fluids.—The urine is of amber color, turbid in appearance, specific gravity 1,026; acid reaction, urea 2.6 per cent. By the microscope a few squamous and columnar epithelial cells and a few leucocytes are found.

Examination of the blood showed hemoglobin 78 per cent., erythrocytes 4,830,000, leucocytes 7,800, color index 0.81.

The examination by Dr. Stelwagon of 55 c.c. of the fluid discharged from the tumor showed it to be a cloudy, yellowish-pink fluid which, on standing, separated into two distinct layers, an upper clear and a lower cloudy stratum. The reaction was neutral to both litmus and phenolphthalein, specific gravity 1,008, that of the normal saliva being 1,002 to 1,006. Sulphocyanid is absent. It is highly albuminous as shown by Tanret's reagent, heat and nitric acid. There was also a small amount of mucinoid substance. A very faint trace of the nitrites was present. Neither sugar nor other reducing agent was found either in the solution or the sediment. The specimen was tested for the presence of ptyalin or other amylolytic enzymes by the admixture of the solution with soluble starch; the resulting mixture was then digested for one hour at 40 C. and tested. The test for erythrodextrin and sugar proved negative. Microscopic examination showed the sediment to consist of many polymorphonuclear leucocytes and a few erythrocytes; no epithelium nor salivary elements were found.

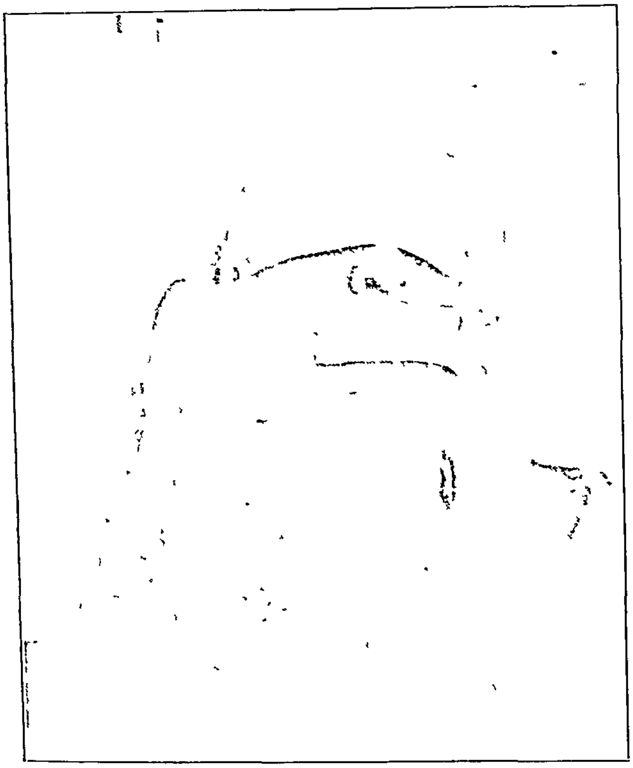

Fig. 1.—Tumor seen from the front

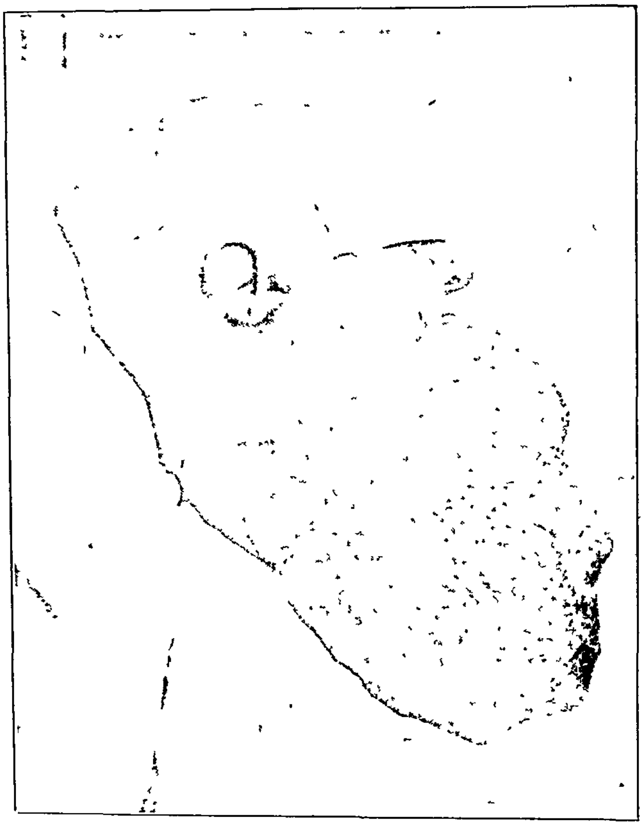

Fig. 2.—Tumor seen from the side.

Operation.—Jan. 6, 1904. Drs. Hearn and Stewart, together with the house surgeon, Dr. Gillette, kindly assisted me. I first made an incision from the ear to the collar bone, a little internal to its vertical axis, thus passing over the tumor in such a direction as to give me a considerable anterior flap. This was dissected from the front and the inner side of the tumor; then dragging the tumor outward with retractors, I was able gradually to separate it from all the deeper tissues of the neck, including the jugular vein and carotid artery. The tumor was very adherent to the vessels, the sterno cleido mastoid and the auricularis magnus; a number of branches of the facial were unavoidably divided, though I did not recognize any of them. A number of large veins emptying into the jugular were found on the surface of the tumor. Each one of these was double ligated and divided. By the weight of the tumor the submaxillary gland was drawn down over the anterior surface of the tumor to the level of the upper border of the thyroid cartilage. This was dissected off the tumor and the facial artery, which passed through it, was double ligated and divided. I then formed a posterior flap of skin similar to the anterior and finally removed the entire tumor. At probably a dozen or fifteen places the fascia between the lobules was spread out in dense fibrous layers, which had to be divided one after another, the division of each one enabling me to roll the tumor outward with greater ease. In the parotid region, in dissecting it out, a moderate amount of the parotid gland was removed. As there was considerable oozing over the entire surface, I placed two layers of iodoform gauze on the surface, inside of this two layers of plain sterile gauze, and closed the entire wound, leaving gauze protruding at lower end.

During the operation he was given four pints of salt solution and two drams of adrenalin (1 to 1,000) gradually administered. The operation lasted an hour and ten minutes.

Blood Pressure.—The blood pressure the day before the operation by the Riva-Rocci apparatus, was 164. mm. When the etherization was begun the blood pressure was 210 mm. It rose within ten minutes to 230, but when the first incision was made it fell to 205. At the same time the pulse, which before etherization stood at 80, gradually rose during the etherization to 125, where it stood at the time of the first incision. The blood pressure rose slightly after the operation was begun and then, as it was continued, fell to 185 at the end of the first half hour. The infusion of adrenalin and salt solution was then begun and the observations on the blood pressure necessarily were interrupted by this procedure, as it was necessary to use the left arm for both these observations and the infusion, since I was standing on the right side, and could not allow the right arm to be used. After the operation the pulse remained at the same level, 125, but the blood pressure had fallen to 110 mm.

Convalescence.—His highest temperature after the operation only reached once a little above 99 until one week after the operation, when it rose once to 101. The cause for this was perfectly clear. The incision was close to the corner of the mouth on the right side. The operation necessarily paralyzed the seventh nerve, which was involved in the tumor, and in consequence of this, there was a constant dribbling of saliva. This produced a slight infection at the middle of the wound, and delayed the final healing for a considerable time. Other than this he made a perfectly smooth recovery.

Examination of the Tumor.—At the time of the operation, a culture was taken from the discharge through the open sinus. Prof. W. M. L. Coplin reported that after 48 hours a pure culture of *Staphylococcus pyogenes albus* was present. Specimen (Fig. 3) shows the tumor and the large cavity in the center. The size of the tumor was 25 cm. long and 17.5 cm. in diameter. The weight was 2,440 grams, over 4¾ pounds, to which, before the rupture, should be added over two pounds of liquid, which escaped, making the tumor originally about seven pounds in weight. I give the remainder of the report by Professor Coplin and Dr. Ellis in full:

Gross Anatomy.—"A long incision which has been made into the specimen, on the surface opposite the area of skin, shows it to contain an enormous cavity that forms a large part of the bulk of the mass, the tissues described being in the form of a shell that varies from 1 to 8 cm. in thickness. The cavity is entirely devoid of contents. The limiting wall is grey in color, with pinkish markings, and is made exceedingly rough by projecting ridges of tissue. These ridges traverse the wall in every direction, and are from 1 to 3 cm. in width at their bases, narrowing outward until in many instances they become very thin at their most prominent parts. Owing to the curvature of the wall of the cavity the external margins of two of these ridges are, in some sites, brought in close proximity, the spaces between them leading into pocket-like recesses which closely approach the external surface of the specimen. The ridges are formed of tissue similar to that making up the exterior of the mass. The incised surfaces are grey in color and have a cartilage-like consistency. At several points the density of bone is almost or quite attained.

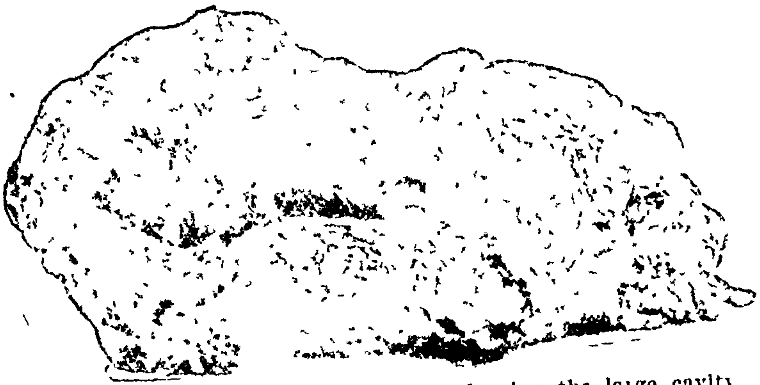

Fig. 3.—The tumor after removal, showing the large cavity.

Microscopic Examination.—"Small portions of the specimen were fixed in Bensley's and Zenker's fluids and in 10 per cent. formalin. The gross specimen was preserved in Kaiserling. Blocks of tissue from the former were dehydrated, cleared and infiltrated with celloidin. Sections from these blocks were stained with hematoxylin plus eosin of Van Gieson, toluidin blue, thionin, Mallory's reticulum stain, and Weigert's stain for elastic tissue.

"Histologic study of the sections shows them to be composed of very diverse structures. Those including a part of the external surface of the tumor show a thick fibrous capsule. The external portion throughout, and at some points nearly the entire substance of this capsule is extremely dense and practically a vascular fibrous tissue. The inner portion is less dense, contains distinct blood vessels, and in some areas is quite cellular in type. At certain points are small areas of adipose tissue, adjoining which are variously shaped small open spaces in the dense outer portion of the capsule that appear to be included fat Within the capsule are areas of the tumor composed of cells within a matrix of either fibrous or myxomatous tissue or areas of cartilage. The cells are mainly round or oval, with here and there a few that are spindle shaped. In some areas they form distinct masses, with but scanty intercellular substance, while in others they line spaces, presumably lymph spaces, being here from one to many layers thick. As previously stated, the supporting structure in some of these areas is fibrous tissue, which in some instances forms distinct trabeculæ. In other areas the matrix is myxomatous In certain of these areas the cells are numerous, forming quite distinct masses; in others they are comparatively scanty, being arranged in narrow bands that cross each other in such a way as to give a distinct plexiform appearance. Here the cells are oval or flattened in shape and the nuclei stain poorly, contrasting markedly with the masses of larger, round, deeply staining cells, which in many instances are separated from them only by a moderately wide band of fibrous tissue. The former present the appearance of true sarcoma cells, and have among them numerous thin-walled blood vessels, while the latter are undoubtedly derived from the endothelial lining of the spaces which they enclose.

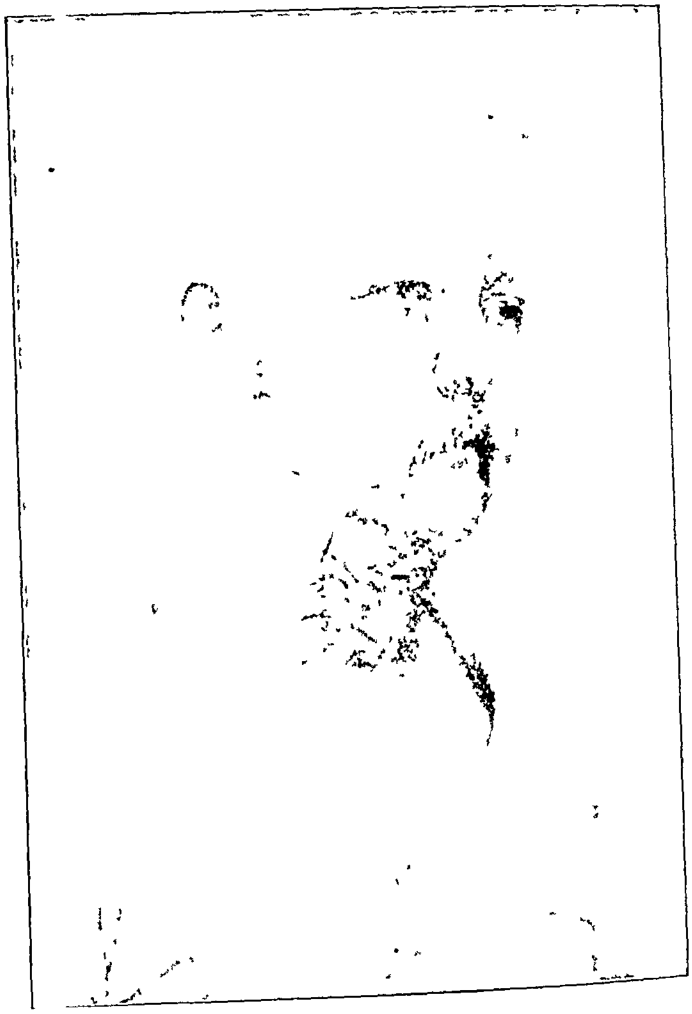

Fig. 4.—The patient three months after operation.

"Many of the sections are composed partially, in some instances almost wholly, of cartilage. This is usually fibrous in type, though areas of the hyaline variety are to be noted. The capsules of many of the cartilage cells are wrinkled and contracted. In a few areas bone formation has been attempted as shown by the presence of osteoid tissue containing lacunæ and distinct cells, but lacking true lamellæ. At some points the stroma between masses of the tumor cells has undergone hyaline change, giving such areas a very close resemblance to the so-called cylindromas.

"Sections which include the inner surface of the tumor, the wall of the large cavity, show it to be bordered by softened, fragmented and slightly necrotic tumor tissue. A few polymorphonuclear leucocytes are also present.

"Sections stained for elastic tissue show an abundance of that structure in the stroma of the tumor, especially in the less dense areas where the cells are least numerous.

"Sections stained by carbol-thionin show in some areas an exceedingly fine network that stains a distinct reddish tinge.

"*Diagnosis.* — Myxo-chondro-lymphangio-endothelioma. Although no salivary gland structure has been found in the sections studied, the specimen conforms in every particular to the mixed tumors which occasionally originate in those organs, particularly the parotid."

REMARKS.

The diagnosis and structure of these mixed tumors of the parotid region have been so thoroughly considered by Dr. O. A. J. Kelly[1] and Francis Carter Wood,[2] that I do not consider it necessary to consider them here anew, as I could add nothing of importance.

From the surgical point of view, the slow and later the rapid growth, the enormous size (certainly the largest tumor of the neck I have ever operated on), his age and the fact that I was able to dissect it away from the important structures, especially the blood vessels of the neck, and the very happy recovery of the patient, justify the report of such a case.

I may add that not only is he well, but, having been practically imprisoned in his house for over two years by reason of his annoyance when people observed him, he now once more freely goes out and mingles with his fellow-creatures. The operation has given him a new lease of life. The only price that he pays for it is a long visible scar and paralysis of the right seventh nerve, a small price for such a delightful relief. Figure 4 shows the result three months after operation.

Clinical Report.

REMOVAL OF PIN FROM LUNG PER VIAS NATURALES.

WITH BRONCHOSCOPE AND TUBE FORCEPS.*

E. FLETCHER INGALS, M.D.

CHICAGO.

History—A young woman suffering from a foreign body in the lung was referred to me, March 23, by Professor Senn. She stated that nearly a year ago she had drawn a large glass-headed pin into the trachea, and that it had caused severe cough, expectoration, and at times choking spells and pain. About six weeks ago Dr. Allison of Brownwood, Texas, had done tracheotomy, but as it was impossible to find the pin he had closed the wound, which had healed quickly. A radiograph taken at the Presbyterian Hospital located the pin, head downward in one of the divisions of the right bronchus.

Operation.—I operated the next day, assisted by Drs. G. H. Kennett, A. M. Corwin, O. T. Freer and N. P. Colwell. I first administered gr. 1/60 of atropin hypodermically to check secretion, then gave chloroform, and when anesthesia was nearly complete, sprayed the larynx and trachea once with a solution of cocain, 10 per cent., and suprarenalin 1 to 4,000 guarded by atropin, strophanthin, carbolic acid and oil of cloves as in the solution I use for anesthetizing the nares. I then introduced a Killian bronchoscope, 34 cm. in length and 8 mm. internal diameter, through the larynx down into the right main bronchus, and one of its larger branches. The parts were illuminated with a small (Chicago Electro-Appliance Co.'s) No. 1 (cold) lamp with carrier 33 cm. in length, that I had made for the special purpose. The secretions and a very little blood were repeatedly swabbed out with cotton and the parts touched with the same solution of cocain. I carefully explored the three branches of the bronchus, and with a blunt hooklet searched for the pin which I did not succeed in bringing into view for about three-quarters of an hour.

Finally, with the hooklet, I brought it across the end of the tube and demonstrated it to Professor Senn and to E. J. Senn, S. A. Friedberg, J. F. Dolamore, E. L. Kenyon, to my assistants, and to several other physicians who were present. I then caught it with Killian's tube forceps and tried to bring the end of it into the bronchoscope but although I released it several times and manipulated it in various directions, I could not succeed, therefore, I finally grasped it firmly and drew it and the bronchoscope out together. In doing so the pin was bent to an acute angle near the head, and that it caused some injury to the parts was evidenced by a little soreness the next day, but this disappeared in a few hours. There was a temperature of about one degree two or three hours after the operation, but no fever subsequently. Three days later she returned to her home in Texas.

The pin was of brass, 4 cm. long and the glass head measured 5.5 by 8 mm. in diameter. It was apparently lodged in a division of the bronchus passing downward and backward, but I was unable to see the head at all, and could see nothing of the pin itself until I swept it across the end of the tube with the blunt hooklet.

New Appliance.

AN ARMY SPLINT.

HOWARD W. BEAL, M.D.

Late Assistant Surgeon U. S. Army.

WORCESTER, MASS.

During an army service of three years, including transport, field and hospital duty in the Philippines, the need of a leg splint that could be used for emergencies in the field, as well as for fixed dressings in the hospital, was often seen, and it was to supply this need that the splint here described was devised. When I was assigned to the surgical service of the First Reserve Hospital in Manila, the base hospital of the Philippines, the leg-splints on hand were inadequate to supply the hundred surgical patients, as there was no efficient leg-splint obtainable for general field or hospital use, and for any immobilization it was necessary to improvise with straight splint and plaster, a slow and unsatisfactory method.

THE CABOT SPLINT.

The splint is a modification of Dr. A. T. Cabot's posterior wire leg-splint which has been in use at the Massachusetts General Hospital in Boston for the past twenty years. The Cabot splint (Fig. 1) is made of a round, wrought-iron rod, three-eighths of an inch in diameter, shaped into a long rectangular frame, extending from the fold of the buttock to an inch beyond the heel, where it turns at a right angle, making a foot-piece, twelve inches long. The cross-piece, at the fold of the buttock, is slightly curved to the line of the thigh, and completes a rigid frame which, when padded, supports the leg. In the hospital the various lengths required are kept prepared for immediate use.

An important advantage of the splint emphasized by Dr. Cabot is its use in cases of discharging sinuses of the leg or thigh. In these cases, the cross-winding near the wound is omitted, and the rod is covered with a waterproof protection, as oil silk, which permits the wound to be dressed without disturbing the immobilization.

THE ARMY SPLINT.

The modification of the Cabot splint for army service consists in folding the foot-piece on the leg rods, and arranging the leg rods and thigh cross-piece to allow extension. (Fig. 2.) A rivet hinge is placed at the junction of the foot-piece and leg rods, and to secure firmness, the rods of the foot-piece are carried up one inch inside the leg rods, where the ends are flattened in outward curves to clasp tightly the under half of the leg rods. (Fig. 3.)

The leg extension is obtained by two closely approximated square rods, each having at its end a rectangular collar closely fitting the accompanying rod. (Fig. 4.) The extension of the cross-thigh piece (Fig. 5), which is slightly curved to fit the back of the thigh, is secured in the same way as the leg rods, but with flattened collars. The leg rods are so adjusted that opening the cross-thigh extension (Fig. 5, B) releases the leg rods so they will slide to any desired length, and closing the cross-thigh extension (Fig. 5, A) locks both the cross-thigh and leg extensions at any point.

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[1] Philadelphia Monthly Medical Journal, February, 1899.

[2] Annals of Surgery, Jan. and Feb., 1904, pp. 57 and 207.

* Preliminary report to the Chicago Laryngological and Climatological Society, April 18, 1904.

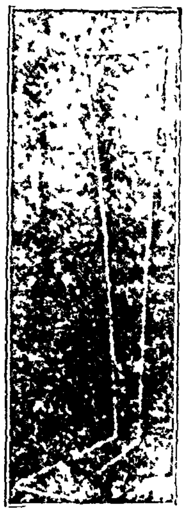
Fig. 1

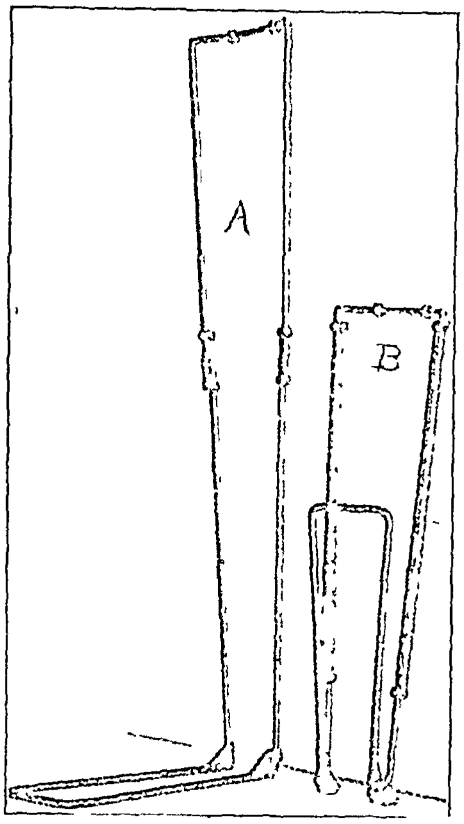

Fig. 2.

Fig. 1.—The Cabot posterior wire splint
Fig 2.—The Army splint.. A. Extended B. Closed.

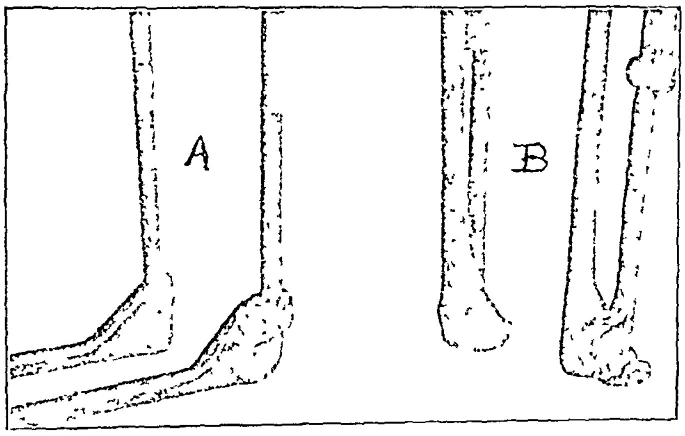

Fig. 3—Showing detail of mechanism at junction of foot-piece and leg rods. A. Extended. B. Closed.

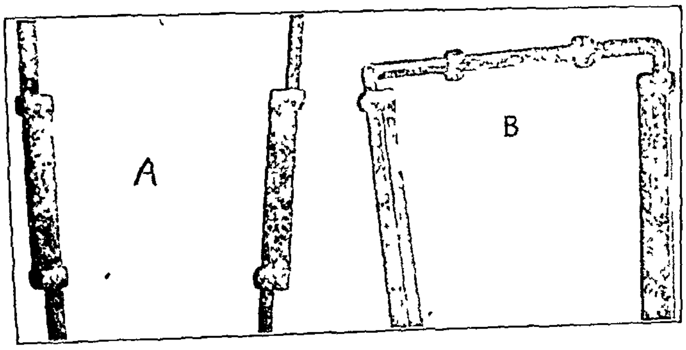

Fig. 4.—Showing leg rods. A. Extended. B. Closed

The splint folded is twenty inches in length and weighs three and a half pounds. It occupies little space and can be easily transported, two points of vital importance for the military surgeon in the field.

For use as a field or emergency splint, the foot-piece is unfolded, the cross-thigh extension opened, the leg rods extended to the desired length, and the cross-thigh extension closed to lock the leg extension. A blanket is folded to the length of the leg and foot-piece (Figs. 6 and 7), and on this the leg and foot are fastened to the splint with bandages, or any straps available

PADDING THE SPLINT FOR HOSPITAL USE.

For hospital use, the splint is prepared as is the Cabot splint, by first winding the rods spirally with a narrow band of cotton "sheet wadding" (Fig. 8, A) then cross-winding the entire frame with bandage to make the bed of the splint (Figs. 8, B, and 12, A). On this bandage bed is placed a thick pad made of four or five pieces of sheet wadding folded to the shape of the splint, and extending from the cross-thigh piece to the ankle. (Fig. 9.) A small additional pad is placed between the layers to fill the popliteal space (Fig. 9, BB), and the whole padding held on the frame by four or five pieces of tape or narrow bandage. (Fig. 9, CCCC.)

The foot-pad is made by covering heavy pasteboard (which has been cut to fit the foot-piece) with sheet wadding an inch thick,

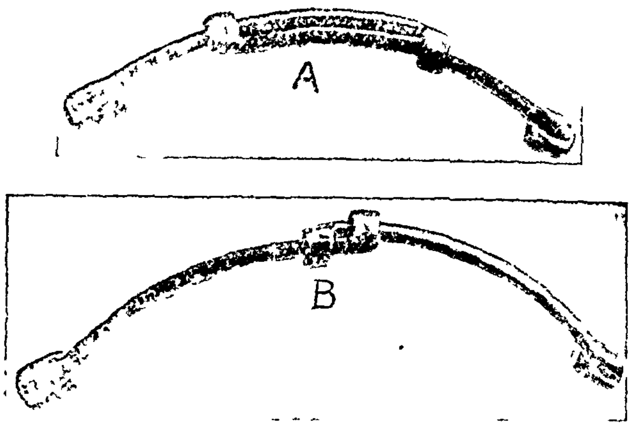

Fig. 5—Cross-thigh piece. A. Closed to lock itself and leg rods B. Opened to allow leg rods to slide to desired length

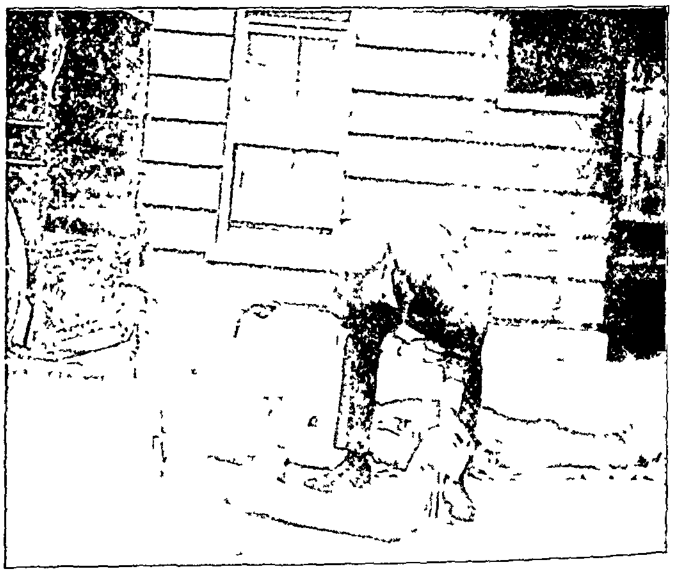
Fig 6—Showing method of preparation for field or emergency use with folded blanket.

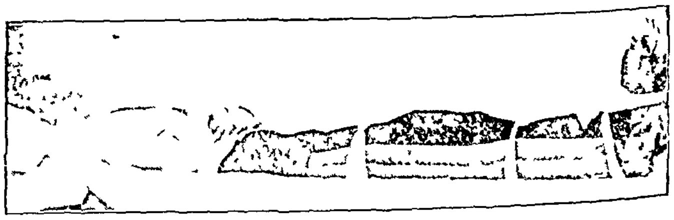
Fig. 7.—Showing field or emergency use with blanket—completed

with an outer cover of muslin, and fastening this around inner edge of bandage-covered foot-frame, with pins. (Fig. 9, AA).

On this padded splint, the leg is held by straps of adhesive plaster (Fig. 10), the heel occupying the vacant space between the foot-piece and the padding at the ankle. The leg is then wound with a layer of sheet wadding torn in strips, five or six inches wide, rolled, and applied spirally. (Fig 11, A.) The leg is now bandaged from the toes to thigh. (Fig. 11, B).

This is sufficient for ordinary immobilization of the leg, but in case of fracture, three "side-splints" are added, to maintain the position of the reduced fragments. The "side-splints" (Fig. 12, BB) are pieces of straight board, four inches wide, one-fourth of an inch thick, and one inch longer than the splint, padded on the inner sides with a thin layer of sheet wadding and covered with muslin. One of these is placed under the bandaged leg between the leg rods of the splint; the other two are placed on the sides of the leg, and the inner sides padded by enclosing folded towels in half sheets or pillow cases, folded to fit the lateral contour of the leg, to maintain the lateral position of the fragments. These side-splints are held on by four strong straps made of cotton webbing, one and one quarter inches wide. (Figs. 12, E, and 13).

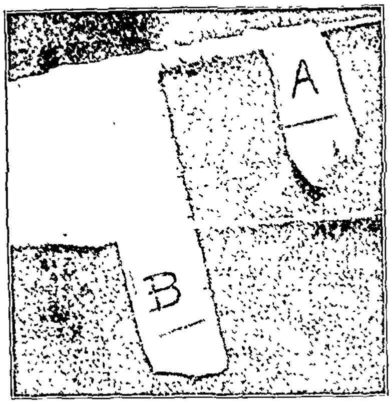

Fig. 8.—Showing method of preparation for hospital use. A. Winding rods with strip of cotton sheet-wadding. B. Cross winding rods with bandage.

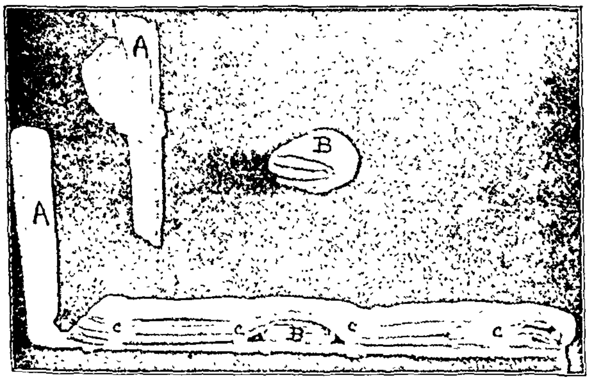

Fig. 9.—Showing sheet-wadding padding. A A. Foot-piece pad. B B. Popliteal pad. C C C C. Narrow bandage or tape holding padding to splint.

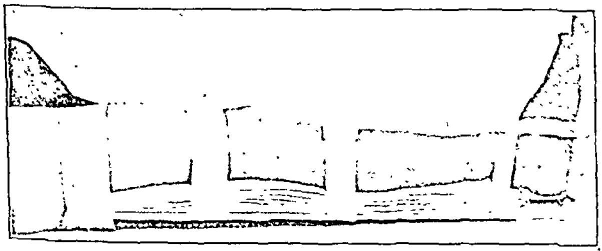

Fig. 10.—Showing leg held on splint by adhesive straps with pad under strap at tubercle of tibia.

ADVANTAGES.

1. The splint will fit any leg, thus avoiding the necessity of making several splints of different lengths.

2. Its simplicity, lightness and compactness make it valuable for all conditions of army field and hospital service.

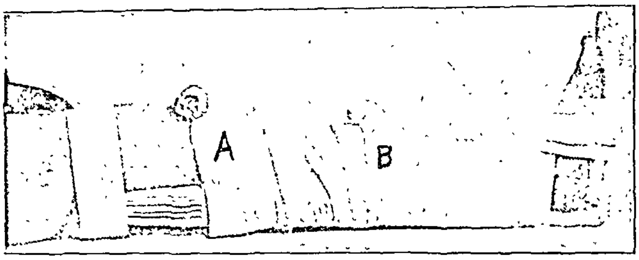

Fig. 11.—Showing method of winding and bandaging the strapped leg. A. Cotton roll of sheet-wadding. B. Bandage.

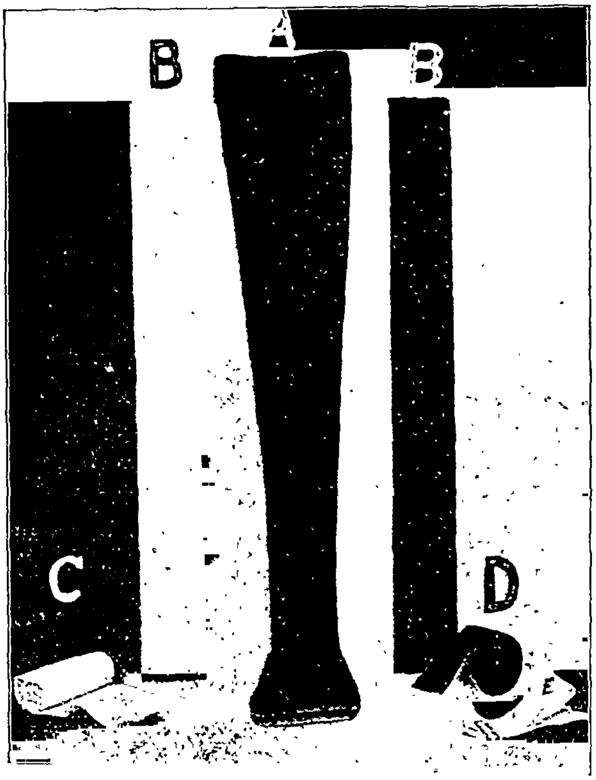

Fig. 12.—A. Splint wound with bandage. B B. Side splints for use with fractures. C. Cotton roller. D. Folded bandage. E. Cotton webbing strap to hold side-splints.

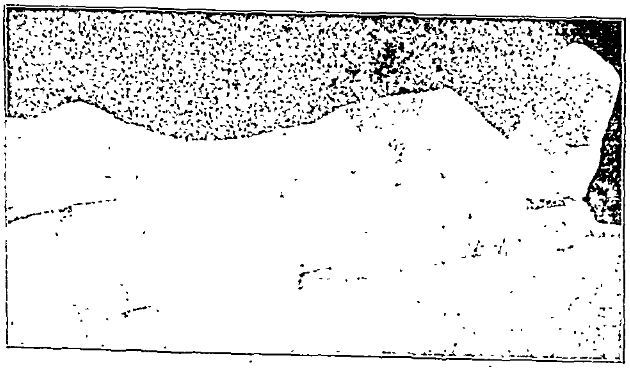

Fig. 13.—Showing side-splints applied for fracture.

3. The Hospital Corps of the Army can be taught its field use, with its preparation and use for hospital cases, thus establishing a uniform and efficient method of immobilizing every kind of leg injury.

THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION

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THE ATLANTIC CITY SESSION.

Considerable space in this issue is taken up with matter relating especially to Atlantic City and to the coming session of the American Medical Association, including the programs of the sections. The promise for a large meeting is greater than for any previous year. The fact that the railroad rates are so favorable will certainly encourage many to attend who would not otherwise think of doing so. Never before has the Association had better than one and one-third rates when meeting in the territory of the Trunk Line Association. This year, however, the rates are one fare for the round trip, plus $1.00, which will make the traveling expenses, even for those who have to go a long distance, comparatively low.

In the matter of hotels, no place offers better inducements than Atlantic City. Those who desire to economize will find good hotels at moderate prices, and those who want to live on the best can find accommodations—and prices in proportion.

Atlantic City is a popular resort, both in winter and in summer, but the climate in June is all that could be desired. The time is also a good one, for the reason that it is between seasons, and the pleasure resorters will not be there—to any great extent at least. The fact that the place of session is so close to the thickly settled part of our country and to the principal medical centers, will naturally favor a larger attendance than would otherwise be the case.

At the session held in Atlantic City four years ago 2,019 were registered, and last year at New Orleans 1,993 were registered. If such a large attendance could be had at a place so far from the majority of the members as New Orleans, we may expect at least 50 per cent. more at Atlantic City this year, on account of the nearness to the center of population, the splendid hotel accommodations, and other advantages.

We print the programs of eleven of the twelve sections, and a cursory reading of these will convince anyone that the scientific work alone ought to stimulate many to attend. Each section offers most excellent scientific work, and there is much to attract not only the ultrascientific man and the specialist, but the general practitioner also.

The local profession has worked hard to make the session a success, and we do not doubt that those who go only for pleasure will be well satisfied with the entertainment that will be accorded them.

The section meeting places are more compactly located than they were four years ago, and consequently "that tired feeling," that was complained of at Atlantic City before, on account of so much walking in going from one section to another, will be avoided.

Altogether the outlook for the session is unusually bright. The stimulus of the organization movement which has swept over the country, and the features of Atlantic City, which we have mentioned above—all these will combine to make the fifty-fifth session one of unusual interest.

THE N RAYS.

We recently spoke of the discovery of the remarkable N rays and commented on their sources. The properties of the rays have been determined sufficiently so that the rays may be properly classified. They are reflected from polished surfaces, such as glass, and are also refracted, as is shown by the fact that they can be focused by means of a quartz lens. It should be stated that several foci may be obtained in this way, indicating that there are rays of different wave lengths. The index of refraction was found by Blondlot to vary from 1.04 to 1.85. Wave-length determinations vary from 0.008 μ to 0.018 μ. They are, therefore, rays of very short wave lengths, and the above measurements place them in the spectrum far out beyond the ultraviolet. The rays can be polarized, differing essentially from x-rays.

The penetrability of these rays is remarkable. They pass through plates of tin, copper, brass, aluminum, steel, silver, glass, mica, paraffin, fluorin, sulphur and wood. They are arrested by lead, rock salt, platinum and water. A salt solution is very permeable. A piece of cigarette paper when dry or moistened with salt solution is easily penetrated, but when moistened with water is quite opaque to the rays. Certain substances seem to have the power of absorbing the rays and giving them out later. The Leclanche cell has already been mentioned. Hyposulphite of soda has been found to possess this property after exposure, for example, to the light from a Nernst lamp. Sea water emits the rays for a time after exposure to the sun. An interesting fact in connection with these rays is the property which they possess of being transmitted by a metal wire. Only those metals transmit the rays in this manner which are penetrated by the rays. They have been transmitted a distance of 10 meters. It is necessary for the surface of the wire to be smooth or polished in order to conduct the rays; if the surface is oxidized it no longer conducts them. Therefore, the property of reflection may be the determining factor here, as pointed out by Bichat, the process being analogous to the phenomenon of the conduction of light through a piece of curved glass by the principle of successive reflection.

The N rays do not have any effect on a photographic plate directly. However, the effect which they exert on a luminous source, as a small electric spark or a flame, can be recorded by means of photography, and Blondlot[1] shows some very clear pictures illustrating this. Very recently he has observed rays which have a shorter wave length, and which, instead of increasing the luminosity, decreases the luminosity of a phosphorescent screen. These rays he has called N_1. They are emitted by compressed caoutchouc, celloidin and ivory, pieces of silver iodid and ice near the temperature of zero. These rays diminish the sense of smell, vision and hearing, thus apparently acting in an opposite manner from the N rays.

Interesting application has already been made of the physiologic facts observed concerning N rays. Ballet has studied the emission of these rays in certain pathologic conditions. He found that in myopathies, neuritis and acute anterior poliomyelitis there was a noticeable decrease in the emission of these rays along the course of the nerves as compared with the normal emission. In hemiplegias and spastic paraplegias the emission of rays is increased. In diseases, therefore, involving the lower neurons there is a diminution, and in those involving the upper neurons there is an increase in the emission of rays from the peripheral nerves. Thus there seems to be an exact correspondence between the emission of rays and the activity of the neuron. Charpentier claims that he could detect rhythmical alterations, corresponding to inspiration and expiration, in the phosphorescent screen when placed over the respiratory centers low down in the occipital region.

Naturally many have been skeptical concerning the observations made by the Nancy physicists, and have called into question certain phases of their work. Swinton,[2] while not absolutely denying the existence of the rays, is strongly inclined to think that many of the observed phenomena are due to heat rays, and has performed some experiments to prove this. Charpentier gives what seems to be very conclusive evidence that the N rays are entirely different from heat rays. For example, the contraction of the muscles of a frog's leg, which may even be below the temperature of the screen and the room, furnishes the rays in abundance. He also made careful determinations of heat effects with the electric pile, and comes to the conclusion that the heat rays are not responsible for the increased luminosity observed in the screen. Walscham and Miller[3] and also Hooker,[4] in England, have confirmed the work of the French, and agree with them perfectly regarding the fundamental facts. Work in the *Lancet* laboratory has also confirmed these observations. The evidence in favor of these rays is accumulating so rapidly and is at present so convincing that their existence can hardly be called into question.

IRON THERAPY.

The history of the employment of iron in therapeutics is most interesting, and is full of lessons in drug application and their supposed effects. Iron has been used empirically so far back as any definite knowledge of medicine goes. Its medical uses are mentioned by Pliny, who evidently recognized definite indications for its employment. It was employed long before it was known that iron existed in definite quantities in the body, and that the affections in which iron seemed to do good were really those in which there was a marked diminution of the normal amount of iron. There seem to be some grounds for believing that the reason why iron was employed at first was no better than the primitive notion that anemic individuals were weak, and that somehow iron out of its strength supplied them with renewal of vigor.

Therapeutics have been enriched by really efficacious remedies in much more modern times without any better reason than this. The fact is that Sydenham's expression, "To the worn out and languid blood, iron gives a spur or fillip whereby the animal spirits, which before lay prostrate or sunk under their own weight, are roused and excited," is as good a basis for the use of iron in medicine now as it was in his day. We must confess that we do not know how it acts, and that even now the rationale depends rather on our knowledge of its clinical value than on all the supposed reasons for its efficaciousness, which have supposedly been furnished by physiologic therapeutics. It remains an empiric and not a rational remedy. It is sometimes the custom to think that it is belittling to use remedies for which we have only empiric reasons, and Sir William Gowers was not far off when he recently said: "I yield to no one in my sense of the importance of the rational in therapeutics, but we need to be careful lest, in contrasting the rational and empirical, we allow our esteem for the one to induce a depreciation of the other."

There was a time, and that not very long since, when there was almost universal consensus among authorities in therapeutics that iron was an example of the use of a specific in medicine. Then came a period in which it was considered to be rather a nutrient in the sense that it supplied a deficiency in the tissues, than as a remedy in any true sense of the word. At the present time there are many good authorities on therapeutics who do not hesitate to say that iron acts, not by supplying the place of the lacking hemoglobin, but rather by its stimulating effect on digestive and absorptive processes in the intestines. There are even those who have insisted that the use of iron when it was actually absorbed in any considerable amounts brought about a degeneration, or at least degenerative appearances in the red blood corpuscles, not unlike those which are seen in certain phases of lead poisoning.

Of the advantage of the employment of iron in certain cases there can be no doubt. This has been recognized by clinical experience, even when it is administered in very crude forms. There are country people still alive who remember when their fathers went to the village store, bought half a pound of shingle nails and a quart of vinegar, and having allowed the nails to remain in the vinegar for some time, gave the resulting solution containing some acetate of iron to their anemic wives, or more especially chlorotic daughters, and thought they obtained good results. In the midst of the present discussion of organic preparations of iron as the only possible iron compounds that can do good, and to the application of the most delicate tests in order to show that iron compounds can possibly be efficient in the human economy, this old-fashioned form of iron therapy must seem woefully crude, yet it would seem that it was often wonderfully effective. On the other hand, it must not be forgotten that one of the most distinguished English clinical authorities of modern times, Sir Andrew Clark, insisted that chlorotic forms of anemia particularly were due to constipation more than to anything else, and could be very successfully treated by proper attention to this symptom rather than by the direct treatment of the lack of hemoglobin.

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[1] Comptes Rendus de l'Acad. des Sciences, No. 8, 1904.
[2] The Lancet, London, March 5, 1904.
[3] Ibid., Feb. 27, 1904.
[4] Ibid., March 5, 1904.

THE EXAMINATION OF SCHOOL CHILDREN'S EYES AND EARS.

Since the publication of Beer's treatise on "Healthy and Weak Eyes" in 1800, in which many useful and important hints are given to teachers regarding the preservation of the sight of their pupils, physicians have appealed to the public conscience for a regular examination of school children. It is not, therefore, due to a lack of knowledge that these defects in our otherwise admirable public-school system have received so little attention, but because, until quite recently, there has been no systematic and sustained effort to introduce some simple, effective and practical means of detecting ocular and aural diseases that is capable of ready application by the teachers themselves. Appeals for the proper care of children's eyes and ears have borne better fruit in continental countries—especially in north Germany—than in the United States, chiefly because a paternal form of government seems more fit for the promulgation of widespread reforms of this character than does our own, where the work has to be carried on mostly by private enterprise or by agitations repeated in and for each state. However, the labors of such pioneers as Dr. Peter Callan (who in New York thirty years ago demonstrated the existence of eye defects in a large percentage of school children), of H. Derby, Mittendorf, Randall, Risley, Cohn and others, have served as a basis for a ready method of examination which has already been adopted by many school boards.

In a paper read this month before the International Congress of School Hygiene at Nuremberg, Professor Cohn of Breslau called attention to this subject, and referred to the fact that forty years ago he inspected the Breslau school children, which is perhaps the first systematic work done in this line. Until then school hygiene had hardly been thought of. From 1864 to 1866 he examined the eyes of over ten thousand children in search of the cause of the then recognized increasing short sight.

From his investigation he concluded that the number of shortsighted children steadily increases with the development of the school, *from the lowest infant department* through the high school, that myopia increases from class to class; in other words, that it is produced by school life. His experience during the past ten years has also proven to him that the acuity of vision in young children in the open air is two or three times greater than that of children in the school room. He has for years advocated the appointment of ophthalmologists for the examination of school children, and although much has been done in this regard, the number of shortsighted students has not diminished.

In 1895 Dr. Frank Allport, in a paper on "Refraction in Schools,"[1] advocated a plan for instructing teachers how to examine pupils above the first grade for the detection of eye defects. Later he added simple tests for aural affections, and finally perfected a scheme whereby instructions for the examination of school children's eyes and ears, for the use of principals and teachers, are combined with a vision chart. Provided with these ready means of examination even a novice may establish (or disprove) a probable disease of a pupil's eye or ear in a few minutes.

Briefly described, the apparatus consists of a Snellen test chart, appropriately mounted, with directions for the examination of the vision of each eye separately. This reading test shows the amount of defect, if any, in the pupil's eyesight. Then follow nine "facts to be ascertained,"[2] which throw further light on the subject, and serve to detect the more important diseases of the eye, nose and throat.

The plan has already received wide acceptance. Many state societies, among which are those of Michigan, Delaware, Minnesota, Colorado and New York, have adopted resolutions and appointed committees on the subject. The state boards of education of Texas, Kansas and Minnesota have approved the scheme and have put it in practical operation, as have the state boards of health of North Dakota, Illinois, Montana, New York, Indiana, Connecticut (where it is operative under a state law), Minnesota, Kansas, Colorado and Ohio. The American Public Health Association, as well as the Conference of State and Provincial Boards of Health of North America, has also recommended its general adoption. It may also be added that the government schools of India have recently adopted this plan of examination.

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[1] THE JOURNAL A. M. A., March 2, 1895.

[2] These are: 1. Does the pupil habitually suffer from inflamed lids or eyes? 2. Does the pupil fail to read a majority of the letters in the number XX (20) line of the Snellen test types, with either eye? 3. Do the eyes and head habitually grow weary and painful after study? 4. Does the pupil appear to be "cross-eyed"? 5. Does the pupil complain of earache in either ear? 6. Does matter (pus) or a foul odor proceed from either ear? 7. Does the pupil fail to hear an ordinary voice at twenty feet in a quiet room? Each ear should be tested by having the pupil hold his hand over first one ear and then the other. The pupil should close his eyes during the test. 8. Is the pupil frequently subject to "colds in the head" and discharge from the nose and throat? 9. Is the pupil a habitual "mouth breather"?

If an affirmative answer is found to any of these questions the pupil is given a printed card of warning to be handed to the parent. These cards are non-obligatory in their nature. They do not require anything of the parent, who is at perfect liberty to take notice of the warning card or not, as he sees fit. If the parent neglects the warning it is repeated.

We would suggest to those state societies that are yet to meet this year and to all county societies to take up this subject, and not only pass resolutions, but also appoint committees to make the work more effective, uniform and general throughout the country. A uniform plan for the examination of pupils' eyes that can be used by teachers should be adopted after thorough consideration. If the scheme referred to above is not satisfactory, another and better one should be devised. This is really a work that belongs to state medicine as much as to ophthalmology, and consequently a committee representing both the Section on Ophthalmology and the Section on Hygiene and Sanitary Science, would seem to be advisable, the functions of this committee being not only to formulate a perfect plan, but also to enter into correspondence with the state superintendents of schools and others interested relative to having the plan adopted all over the country.

If experience should demonstrate that the plan of having teachers examine the eyes of their pupils does not prove satisfactory, then we should adopt the motto of Cohn, "Keine Schule ohne Augenarzt."

CLINICAL DIAGNOSIS OF LESIONS OF THE PANCREAS.

The importance of the pancreatic functions in the maintenance of health is now universally recognized, and in consequence, the pathologic conditions affecting the gland are being more thoroughly investigated and their clinical effects more keenly studied and appreciated. The symposium on "The Pancreas and Pancreatic Diseases," at the last Congress of American Physicians and Surgeons,[1] epitomized the general knowledge of the subject, and if little addition was made to its extent the more glaring defects were strikingly emphasized. It was demonstrated that various abnormal conditions affecting the ducts and the parenchyma of the pancreas were usually productive of rather indefinite signs and symptoms, and which were, moreover, frequently difficult of differentiation from those resulting from pathologic processes involving neighboring structures. Certain lesions (e. g., acute pancreatitis, chronic obstruction of the common bile and pancreatic ducts) usually give positive indications for the institution of procedures that will almost certainly lead ultimately to the proper diagnosis and treatment, but there are many conditions that do not give these indications, and in which the proper treatment is of but little if any less consequence, so that any feasible and accurate diagnostic aid in the determination of the presence and nature of pancreatic lesions would be of the greatest value. Particularly is this true since it has been conclusively demonstrated that some operations, although performed for the relief of other conditions, have proved to be so beneficial to certain not uncommon pancreatic lesions.

The recent reports of Mayo Robson[2] and Cammidge[3] record the discovery of an apparently accurate and fairly simple clinical test capable not only of indicating the existence of a pancreatic lesion, but also, in a way, of determining its nature. Mr. Robson's reputation carries conviction that the method is worthy of general adoption. It has been fully described in The Journal.[4]

Cammidge's experiments, as reported, seem to exclude the possibility of error or of faulty interpretation of the results. Both are to be congratulated on so important a contribution to clinical methods, especially Mr. Cammidge for the able deduction of the chemical reaction. Whether this may prove to be as efficient in the hands of other laboratory workers, remains to be demonstrated. There is no apparent reason why it should not, and with the large amount of material to be found in hospitals, there should be widespread investigation, and, let us hope, confirmation of such valuable and important observations.

THE GERMAN YELLOW-FEVER EXPEDITION.

We recently referred in our news columns to the fact that not long ago the Institute for Ship and Tropical Diseases in Hamburg sent a fully equipped expedition to South America to study yellow fever in particular. The results already obtained by American, English and French observers will now be subjected to thorough tests, and further reports from the expedition will be awaited with much interest. We see in expeditions of this kind the strongest evidence of the great interest now felt in tropical diseases and hygiene. This movement seems to date back only a few years. The epochal discoveries of Patrick Manson and Ronald Ross were followed by the establishment in Liverpool of a school for tropical medicine by means of funds contributed by wide-awake and philanthropic business men. This school has sent out several investigative expeditions, the results of which have been important in the fight against malaria, and more recently in clearing up the etiology of sleeping sickness. In addition, this school gives courses in tropical medicine. Other seaports have followed the example of Liverpool, and similar institutions have been started in London, Hamburg, Bordeaux and elsewhere for teaching and research, location in seaport towns being necessary in order to gain access to the proper clinical material. The German expedition, which also is to study and report on sanitary conditions in South American harbors, is supported financially by the merchants of Hamburg. Whether viewed from the philanthropic or commercial point of view, the study of tropical diseases and maritime sanitation is so important that we can only rejoice because it is fast becoming a matter of international competition. It may not be out of order to ask what is being done in this field in the great seaports of the United States, in addition to guarding against the importation of infectious diseases. So far as we know there is now no place in America where a physician may receive special instruction of the proper kind in tropical diseases and allied subjects. We look for the establishment of an institution of this kind in Manila before long, but it is quite evident that there is room and need for one or more such institutes in the United States proper.

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[1] Transactions of the Congress of American Physicians and Surgeons, vol. vi, 1903.

[2] Hunterian Lectures, March 7, 9, 11, 1904, Lancet, March 19-26, April 2, 1904.

[3] Arris and Gale Lecture, Lancet, March 19, 1904.

[4] The Journal, April 9, 1904, p. 982.

SANITARY IMPROVEMENT IN SLEEPING CARS.

It is announced in the lay papers that the Pullman company has adopted a new design for sleeping cars, which is intended to more nearly meet the sanitary requirements. There will be no elaborate grill work, and the surfaces will be curved as far as possible. Material has been selected for the curtains and seat coverings which can be easily cleaned and disinfected. It is also stated that orders have been issued for more thorough disinfection of cars in which sick persons have traveled. Nothing more unsanitary in a case of infectious disease can well be imagined than the present upholstering of the Pullman railway cars, and the reform is one that certainly will be indorsed by the medical profession. The cars will gain the favor of the traveling public also, although much plainer in appearance and less luxurious than the older ones. It is hoped that the disinfecting and cleaning methods which are claimed to be practiced by the company will be thoroughly carried out.

REASONS FOR THE DECREASED BIRTH RATE.

A sociologic student, Mr. Robert Hunter, in a recent issue of the Chicago *Commons*, adopts the view that the decrease in the birth rate of the native American population is only the result of a universal law which was pointed out years ago by Farr, an English student of vital statistics. That authority observed that while emigration increases the birth rate of a country, immigration to a country almost invariably decreases its native birth rate, and at the same time increases the birth rate of the newly arrived immigrants. According to Gen. F. A. Walker, formerly superintendent of the Federal Census, this has been notably demonstrated in this country. In Mr. Hunter's opinion, immigration has not increased the population any more than would have been the natural increase had there been no immigration whatever. But by reducing the native birth rate it has prevented the propagation of a uniform and valuable stock to an extent that we all at the present time think to be undesirable. Of course, statements like these are not based on actual figures, or if so, the data are limited and have many lacunæ; still, such speculations have a certain probability, and there are other reasons why the truth of the theory should be accepted. These we need not here discuss. We have simply stated the explanation given of the reduced native birth rate, as a suggestion for thought.

EPIDEMIOLOGY OF PARATYPHOID FEVER.

Fischer describes in a recent article[1] an epidemic of paratyphoid fever which occurred in Kiel, affecting more than eighty persons, and which is especially interesting because of its probable origin. Without going into details, suffice it to say that on account of the distribution of the cases, it was relatively an easy matter to exclude water supply, milk supply and the character of the soil from having had any rôle in the spread of this epidemic. In one single house occurred nine cases (in practically all cases the diagnosis was established on the basis of the usual typhoidal symptoms of mild type—only one death—and by carefully controlled agglutination tests). In this house lived a butcher who had his shop in it, and these facts directed attention to the possibility that meat might have played some rôle in the spread of the disease. Inquiry brought the information that with five exceptions the families in which paratyphoid occurred were customers of this butcher. The exceptional cases Fischer would explain as the result of contact infection. He also points out that in an ordinary butcher shop conditions exist that in every way favor the secondary contamination of healthy meat by meat from an infected animal or infected in other ways. In this way he believes that the Kiel epidemic receives an explanation, which in every way harmonizes with all the facts in the case. Paratyphoid bacilli are more than usually resistant to heat. Thus heating for 30 m. to 60 degrees C. did not destroy the bacilli isolated from the cases in this epidemic. Even 5 m. to 75 degrees C. did not destroy all the bacilli. This resistance would serve to explain how imperfectly cooked infected meat, especially sausage, may spread this disease. While the evidence in Fischer's paper is not conclusive as to the nature of this epidemic, yet the facts brought forward are highly suggestive and instructive. It serves to focus attention on the butcher shop as a possible starting point of epidemics of typhoid-like diseases.

THE BRAIN AND SPINAL CORD IN HEREDITARY ATAXIA.

Some of the important clinical features of hereditary ataxia are summarized as follows by Sanger Brown:

> Hereditary ataxia is a disease which may be traced through several—at least four—generations, increasing in extent and intensity as it descends, tending to occur earlier in life and to advance more rapidly. It usually attacks several members of the same family. It occurs most frequently between the ages of sixteen and thirty-five, but it may begin as early as eleven and as late as forty-two. It shows no marked preference for sex, but it descends through females four times as frequently as through males. . . . There is always considerable inco-ordination of all the voluntary muscles, and a sluggishness of the movements they produce, when the disease is well advanced. This is usually noticed first in the muscles of the legs, but in a few months or years it extends. . . .

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[1] Festschrift zum sechsigsten Geburtstage von Robert Koch, 1903, p. 271.

The anatomic changes in a disease so peculiar as this, with such remarkable hereditary tendencies, naturally arouse great interest. We now have recorded by Barker[1] full description of the brains and cords of two brothers (in the family studied by Sanger Brown) dead of this disease, and the following are some of the most important changes: In both cases the brains and cords were relatively small. Microscopically degenerations were found in gray and white matter of cord, medulla and cerebellum. The degeneration involved the cells and fibers of certain centripetal paths (dorsal nuclears of Clarke, direct cerebellar tract of Flechsig into the restiform body, and a system of exogenous fibers corresponding to the third fetal system of Trepinski, dental nucleus of cerebellum, inferior olivary nucleus of medulla oblongata). One other case of this same family has been studied histologically by Adolph Meyer with, in general, identical results. These reports make it clear that the morbid changes in the members affected in the family described by Sanger Brown, are quite constant, the same neuron systems being involved, but the next question, namely, why are these special systems picked out, medical science as yet can give no answer. The special reasons for referring to this subject in this way are, first, to call the attention of those especially interested to Barker's report, and, second, to emphasize the great value of co-operation to the end that rare and valuable material of this kind may be utilized to the fullest possible extent. The physician in the country and small town without facilities and time for the prolonged work necessary in order to do justice to much material that naturally comes his way, nevertheless may further directly the progress of medical science in this country by securing the co-operation in such cases of investigators with the force and equipment of well-organized laboratories behind them.

Medical News.

CALIFORNIA.

Siskiyou County to Have Hospital.—The supervisors of Siskiyou County have let the contract for a hospital to be erected at Yreka, at an expense of about $10,000.

Personal.—Dr. Rosa H. Engert, formerly of Chicago, was seriously injured in a street-car accident at Santa Barbara, April 10, sustaining a fracture of the skull.——Dr. Frederick T. Bond, has been elected secretary of the Vallejo Board of Health, and health officer.

Health Board Needs More Money.—The San Francisco Board of Health asks for an appropriation exceeding by more than $100,000 that of last year. The chief items of increase are: Emergency Hospital, $9,760; Leper Hospital, $590; Smallpox Hospital, $2,800; Almshouse, $7,100, and City and County Hospital, $80,750.

COLORADO.

March Deaths.—The total deaths for March numbered 837, equivalent to an annual death rate of 17.12 per 1,000. There were 24 deaths from diphtheria, 12 from typhoid fever, and 9 from scarlet fever.

New Home for Dependent Children.—The State Home for Dependent Children has just moved into its new buildings, erected at a cost of $60,000, at University Park, Denver. Admission to the home is made through the district courts, and the state becomes sole guardian. There are now 145 children in the institution.

Contagious Diseases.—The following cases of contagious disease were reported to the State Board of Health during March: Diphtheria, 148; scarlet fever, 128; smallpox, 78, and typhoid fever 39. Compared with February, March showed an increase of 63 cases of diphtheria, and a decrease of 3 cases of scarlet fever, 107 cases of smallpox, and 10 cases of typhoid fever.

DISTRICT OF COLUMBIA.

Physician is Military Secretary.—The President has signed the bill making Brigadier-General Frederick C. Ainsworth, M.D., military secretary, under the new law, with the rank of major general.

New Naval Hospital.—Surgeon-General Rixey has just returned from an inspection tour, the purpose of which was the location of a new naval hospital. He recommends that it be located at Charleston, S. C.

New Morgue Completed.—The new morgue building erected for the District of Columbia and located on the water front, has been completed by the contractors and is ready to be accepted by the district commissioners.

For Increase of Army Medical Corps.—Surgeon-General O'Reilly and Major Jefferson R. Kean recently appeared before the committee on military affairs of the house and urged the passage of the bill which provides for the increase in the medical corps of the Army, commensurate with the size of the army required by law.

Health of the District.—The report of the health office for the past week shows the total number of deaths to have been 111, of which 70 were white and 41 colored. There were 94 births, of which 73 were white and 21 colored. At the close of the week there were under treatment 9 cases of diphtheria, 27 of scarlet fever, and 52 of typhoid fever.

ILLINOIS.

Scarlet Fever in Evanston.—Evanston has 17 cases of scarlet fever under quarantine at present, most of the patients being children who attend the Dewey school.

Fake Doctors Fined.—"Drs." Wallace and Ferguson, itinerants, arrested at Pekin for practicing medicine without a license, pleaded guilty, April 11, and were each fined $100.

School for Feeble-Minded Children.—Beverly Farm Home and School for Nervous and Backward Children, Godfrey, has just completed a brick school and gymnasium building, which will greatly increase the resources of this institution and makes it more effective for good work.

Doctors as Delegates.—B. E. Garrison of Wayne County reports the names of physicians selected as delegates to the state Republican convention, from his county, as follows: Drs. Thomas J. Hilliard, Jeffersonville, Dr. G. A. McDonald, Golden Gate, and Dr. Barney E. Garrison, Wayne City.

Personal.—Capt. Carlton E. Starrett, Elgin, assistant surgeon, Ill. N. G., has been made major and surgeon, and assigned to the Third Infantry, vice Dr. Henry Richings, Rockford, promoted.——Dr. Dorwin D. Barr, Weldon, is ill with smallpox.——Dr. and Mrs. Elbert E. Clark and wife, Danville, have sailed for Europe.

Chicago.

Rejects Inspection Plan.—The school management committee of the Board of Education has rejected the plan of Trustee Hartung for a more rigid examination of school children.

Addition to Home Treasury.—As a result of the "Living Whist" game at the Auditorium, April 18, the Home for Convalescent Women and Children has added $2,000 to its treasury.

Pneumonia Mortality Still High.—The pneumonia mortality has already broken all April records. During the first 23 days of the month 403 deaths were reported—a daily average of 22.1. The April daily average for the previous fourteen years had been 12.4. For the current month the daily deaths from pneumonia have been 78 per cent. higher than usual.

College Elects Directors and Officers.—At a recent meeting of the stockholders of the Chicago Eye, Ear, Nose and Throat College the following directors were elected: Drs. William A. Fisher, Adolphus G. Wippern, H. W. Woodruff, Thomas Faith and John R. Hoffman. The directors thereupon elected Dr. William A. Fisher, president and treasurer; Dr. Adolphus G. Wippern, vice-president, and Dr. John R. Hoffman, secretary.

Males and Aged Die.—Of the total 643 deaths for the week ended April 23, nearly 58 per cent. were of males and 42 per cent. of females—the excess of the former being due, among other causes, to their greater exposure, and 24 per cent. of the deaths were among those over sixty years of age, whose vitality has been reduced by long confinement in over-heated and poorly ventilated rooms. The mortality was equivalent to an annual death rate of 17.37 per 1,000. Pneumonia leads with 141 deaths, or nearly 22 per cent., then follow consumption with 75, heart disease with 57, Bright's disease with 54 and violence with 39.

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[1] The decennial publications of the University of Chicago, 1903, x.

IOWA.

Smallpox.—Seymour is said to be suffering from an epidemic. Public schools have been closed and 25 houses are under strict quarantine.

College Life Ends.—The sixty-third annual commencement exercises of the Keokuk Medical College were held, April 19, when 45 graduates received diplomas. Dr. William B. LaForce delivered the doctorate adddress.

Personal.—Dr. Joseph A. Valenta has been re-elected health officer of Iowa City.——Dr. Rastus B. Raessler, Anthon, was seriously injured in a runaway accident.——Dr. Adelaide L. Ainsworth, Fort Dodge, is seriously ill with typhoid fever.

Medical Library Association.—At a meeting of physicians of Council Bluffs a medical and library association was formed, with a view to the installment of a medical reference library in the new Carnegie library building. Dr. F. W. Dean was elected president.

MARYLAND.

Baltimore.

Injured in Runaway.—Dr. Hiram Woods was seriously injured internally by a runaway accident, April 22, in Druid Hill Park.

Student Kills Himself.—Mr. Ernest Money, a medical student of Baltimore Medical College, committed suicide by inhaling illuminating gas, April 21. His body was found in the bath tub. It is said it was due to despondency from fear of being unable to pass the Maryland State Examining Board.

Society Meeting.—The Medical and Chirurgical Faculty met for its 106th annual session, April 26, 27 and 28. The first evening was devoted to the adoption of the new constitution prepared by the committee, of which Dr. H. O. Reik was chairman. The antitoxins and the Röntgen rays were discussed. Clinics were held at the various hospitals. The president, Dr. Eugene F. Cordell, delivered an address on "The Importance of the Study of the History of Medicine," and Dr. John B. Deaver of Philadelphia delivered the annual oration entitled "The More Remote Consequences of Infected Bile." Dr. C. C. Bombaugh read a poem on "The Foes of the Household." On the last evening a banquet was given at the Hotel Stafford, Dr. R. W. Johnson being toastmaster.

MASSACHUSETTS.

Visiting Nurses in Cambridge.—Cambridge has organized a visiting nurses' association, and will raise a fund of $5,000, to be used for the salary of their nurses for the first year, and for fitting up a home for them. A house has already been secured.

Home for Cripples.—The Massachusetts Committee on Public Charitable Institutions has reported a bill providing for the appointment of a commission of three who shall expend $300,000 for the purchase of land and erection of buildings for a school and home for crippled and deformed persons.

Heavy Expense for Insane.—The report of the trustees of the Boston Insane Hospital shows that under the new state law, the expense of Boston for its insane poor will be largely increased. Formerly this expense amounted to $625,000 a year. This next year it will foot up $737,200. Under the new law the state assumes the care of all the insane, paying Boston $3.25 per week for the 600 now cared for in the Boston Insane Hospital, and leaving that institution in the care of its present trustees. The state tax, however, is very largely increased, amounting to $1,870,000 this year, and of this Boston must pay 36 per cent.

MICHIGAN.

Their Silver Wedding.—On April 23, Dr. and Mrs. Charles S. Cope, Ionia, celebrated the twenty-fifth anniversary of their marriage.

Senior Student Drowned.—M. J. Tinker, a senior student at the University of Michigan Medical Department, was drowned by the capsizing of a boat, April 20.

Radium Water and Sensational News.—A member of the faculty of the Medical Department of the University of Michigan asks us to publish the following notice, which it has been found necessary to have printed to send to those who have been deceived by the sensational newspaper items concerning the use of radium water. The notice is as follows: "The authorities of the University do not hold themselves responsible for the reports in circulation in the public press concerning the use of 'radium water,' so-called, in the treatment of cancer; and hereby notify patients not to come here in the expectation of receiving such treatment."

NEW YORK.

The epidemic of typhoid fever at Watertown is now completely under control. Since January 1 there have been 600 cases, of which 44 have proved fatal.

Smallpox.—During 1903 Jamestown had a limited epidemic of smallpox, with 174 cases, but without a death.——Many new cases of smallpox have been reported to the department of health of Buffalo.

To Allow Felons to Resume Practice.—A bill has been introduced to amend the act in relation to the qualifications of a person who may practice medicine. The law at present states that no person shall practice medicine who has ever been convicted of a felony by any court. The amendment reads: "But where the felony for which the person was convicted was not committed in the performance of his professional duties, and a pardon by the governor has been granted, such person may thereafter resume practice."

New York City.

Bellevue Internes Contract Phthisis.—Several physicians on the staff have been stricken with tuberculosis since the first of the year as a result of overwork and strain because of the overcrowded condition of this institution.

Health Fund Deficit.—Owing to the unusual prevalence of contagious diseases the health department has incurred a debt of $258,678, and Dr. Thomas Darlington has asked the board of estimate and apportionment to raise this amount by bond issue for immediate use.

Money Needed for Hospitals.—The collections fell off this year owing largely to a stormy Hospital Sunday, about $8,000, and the fund is about $4,000 short. The distributing committee has appealed for aid in making up this loss, as the city hospitals have never stood in greater need.

Dr. Morton's Widow Dies.—On April 21, Mrs. W. T. G. Morton, widow of the physician whose work with the anesthetic properties of ether brought it into prominence, died at her home in this city, from pneumonia, aged 79. An article by Dr. Morton appeared in The Journal, April 23, on the early use of ether.

Personal.—Dr. Edward L. Keyes, Sr., sailed, April 23, for Europe. He will join Dr. Lewis A. Stimson and they will take a two or three months' yachting trip along the Mediterranean. ——Dr. and Mrs. Charles T. Poore sailed for Europe, April 23, on the *Zeeland*.——Dr. Patrick H. Fitzhugh sailed for Europe, April 23, on the *Pretoria*.

Campaign Against Mosquitoes.—The board of health has opened its spring war against mosquitoes by issuing a statement requesting physicians to notify the departmentt of all cases of malarial fever which come under their observation; the surrounding locality will then be searched for breeding places and measures taken to kill the larvæ.

County Association Election.—At a meeting of New York County Medical Association, April 18, the following officers were elected for the ensuing year: President, Dr. Francis J. Quinlan; vice-presidents, Drs. Henry A. Dodin and S. Busby Allen; secretary, Dr. William R. Stone; corresponding secretary, Dr. John J. Nutt, and treasurer, Dr. Charles E. Denison.

Contagious Diseases.—For the week ended April 16. 1,416 cases of measles were reported, with 34 deaths; 481 cases of pulmonary tuberculosis, with 210 deaths, 466 cases of scarlet fever, with 28 deaths; 73 cases of varicella; 18 cases of whooping cough, with 8 deaths; 415 cases of diphtheria, with 56 deaths, and 16 cases of typhoid fever, with 6 deaths; there were also 410 deaths from pneumonia.

Physician Sues Estate.—An attempt to collect a check for $10,000 against the estate of an Albany millionaire by Dr. Harris Moak of Brooklyn is being tried before the Supreme Court. While a student he was employed as nurse and masseur to the deceased. About ten days after receiving a check, his patient died, and fourteen months later Dr. Moak presented this check to the executor, who alleged that it was void and fraudulent.

New Bellevue Hospital.—The designs for the new Bellevue Hospital have been made public. They call for a building which, exclusive of land, will cost $11,000,000, which will cover three city blocks and will be the largest hospital in the world, not only in floor space, but in the number of patients it will accommodate. The plans provide for thirteen pavilions under one-roof, but connected by arcades. There will be roof gardens for convalescents, and a water-cure department equipped with all modern apparatus for the hydropathic treatment of disease. There will be spacious quarters for 100 doctors, 100 male nurses, 200 women employes, and 350 male employes. The five upper floors of the south wing will contain medical wards, the limit of each ward being 25 patients. The five upper floors of the north wing will contain surgical wards. The surgical amphitheater will be equipped with 10 operating rooms, all within easy access to the various wards and complete in every detail. Beside the approval of the trustees of Bellevue and Allied hospitals and the board of estimate the plans will have to be submitted to the State Board of Charities, where, it is expected, considerable opposition will be encountered.

OHIO.

Personal.—Dr. and Mrs. William H. Manning, Dayton, have returned from a trip to Mexico and the south.——Dr. Hugo Maetke, Dayton, has returned after a stay of two years in Europe.——Dr. Charles W. King has been re-appointed health officer of Dayton.

Assistant Physicians Meet.—The third annual meeting of the Association of Assistant Physicians of the Ohio State Hospitals was held at Gallipolis April 6 and 7. Dr. William H. Pritchard, Gallipolis, was elected president, Dr. Paul W. Tappan, Dayton, vice-president; Dr. Walter H. Buhlig, Gallipolis, secretary, and Dr. F. Day Ferneau, Toledo, treasurer.

Exclusion of Eddyites Held Unconstitutional.—In the Common Pleas Court, Sandusky, April 18, this afternoon, Judge Reed ruled that the state medical law is unconstitutional because it limits the right to practice without the use of drugs or medicines to osteopaths, and by the rule of exclusion Eddyites are prohibited. He said it should be amended to allow for a reasonable examination of Chrisitian Scientists and for their registration.

PENNSYLVANIA.

Paralyzed.—Dr. Julius A. Stricker, Portage, was stricken with paralysis, April 17, and is still seriously ill.

Bequest.—By the will of Dr. Cyrus R. Stuckslager, McKeesport, $5,000 is bequeathed to the McKeesport Hospital.

Health Board Appointments.—Dr. Louis P. McCormick, president, Connellsville; Dr. Calvin F. McDowell, city phyiscian, Newcastle; Dr. W. Knowles Evans, vice-president, and Dr. Franklin J. Evans, city physician, Chester.

Go to Another Hospital.—Drs. J. Purd Kerr, of the gynecological and surgical staff, and Charles H. Hertzog, of the surgical staff of the South Side Hospital, Pittsburg, have resigned to become members of the staff of St. Joseph's Hospital, which is to open May 1.

Graduate Nurses to Fight Impostors.—The Graduate Nurses' Association met in session in Wilkesbarre, April 20, to frame legislation compelling the registration of all graduate nurses in order to protect the public against impostors. An effort will be made to have the necessary legislation passed at the next meeting of the legislature; committees were appointed for that purpose.

Philadelphia.

Bequests.—By the will of the late George Huster the following institutions have been benefited: St. Mary's Hospital, St Joseph's Hospital, and St. Vincent's Home and Maternity Hospital, $1,000 each.

Cancer Annex Fund.—The managers of the Philadelphia Home for Incurables have not appealed in vain for funds to erect a new cancer annex. Within two months they have received donations amounting to $22,000, varying in amount from $1 to $10,000.

Inspection of Abattoirs.—At the last executive session of the health board, rules and regulations were drafted for a thorough sanitary inspection of slaughter houses, abattoirs and butcher shops. This step was taken as a result of the recent work of the medical inspectors, who reported many of these places in a very unsanitary and filthy condition.

Exposure of Baby Farms.—The *Philadelphia Press* has been devoting special attention to the exposure of existing abuses due to lax legislation with reference to midwives, the registration of births, lying-in hospitals and baby farms. Much public sentiment has been aroused, and it is proposed that at the next meeting of the legislature a bill shall be presented adequately and fully to meet the needs of the city. Every effort will be made to secure the passage of the bill. For this purpose the *Press* has appointed a commission to draw up a statute covering these subjects. The commission is composed as follows: Drs. John G. Clark, Charles E. Cadwalader and Edward E. Montgomery; Mr. George Wharton Pepper, representing law, and Mary E. Richmond, secretary of the organization of charities.

Typhoid Unabated, Increase in Smallpox.—The epidemic of typhoid fever remains unabated, the total cases reported during the week being 352. This is seven less than last week. There were 14 deaths from the disease during the week, a decrease of 15 over the preceding week. That portion of the city supplied with filtered water remains particularly free from the malady. ——*A fresh outbreak of smallpox* has occurred. The new cases reported during the week numbered 32. This is an increase of 7 over last week's report. Nine deaths resulted from the disease, as compared with 5 reported for the preceding seven days. The cases reported are not confined to any particular section, but are scattered throughout the city. The general death rate still continues high, 594 deaths being reported. This is an increase of 24 over those of last week, and an increase of 74 over the corresponding period of last year. Two deaths were due to hydrophobia.

WISCONSIN.

Accident.—Dr. Helen A. Harbert, Kenosha, recently sustained severe internal injuries. An automobile collided with her buggy and she was thrown out.

Want Unisolated Isolation.—The Milwaukee Medical Society has adopted resolutions opposing the plan to remove the isolation hospital outside of the city limits.

Pneumonia.—During March, 74 of the 439 deaths in Milwaukee, or nearly 17 per cent. were due to pneumonia, a larger number and percentage than have ever before been recorded in the city.

Impugns State Board's Motives.—In a petition for a peremptory writ of mandamus filed April 16, the State Board of Medical Examiners is charged with conspiracy and with entering into an illegal and malicious agreement to refuse to recognize the Harvey Medical College of Chicago.

GENERAL.

Another Medical Daily Gives Up.—The *Daily Medical*, which was to revolutionize medical journalism in this country, has ceased to exist. This was the third medical daily to start, and to die, in the United States; evidently there is no great demand for such a publication.

FOREIGN.

Dental Hospital for School Children.—Strasburg has appropriated $80,000 to build a dental hospital for its school children.

Institute for Treating Hernia.—A "Bassini Institute" is planned at Milan to supply operative treatment of hernia to the poor. The subscriptions have now reached nearly $3,000.

Sale of Opium at Smyrna.—The *Riforma Medica* states that 520,000 kilograms of opium, more than a million pounds, are sold at Smyrna each year. A fourth of the entire amount is purchased for the European markets.

Unprecedented Meeting of the Paris Academy of Medicine.—After the official opening of the regular meeting of the Académie on April 12, it was found that there was absolutely nothing on the order of the day, and the solemn conclave adjourned.

Russian Physicians at the Seat of War.—Among those who have left for the far east we note the well-known names of Professors E. Masing jun. and Zoege von Manteuffel of Dorpat. An interesting series of letters from the former is being published in the *St. Petersburger med. Woch.*, written in German.

Shall a Physician Refer His Patients to Certain Pharmacists?—A medical society in Paris has recently been discussing this question, and concluded in favor of the view that it is the physician's right and even duty—under existing conditions—to tell his patients to have his prescriptions made up at certain pharmacies in preference to others.

Anniversaries Among Our German Confreres.—The fiftieth anniversary of the entrance on their professional career has recently been celebrated by Drs. H. A. Müller of Hamburg, A. Bode of Cassel and Salzer of Worms. We also note that the friends of Prof. W. Hittorf, the physicist who discovered the cathode rays, celebrated his eightieth birthday March 27.

Cooking for the Sick.—Vienna has opened a restaurant modeled on the successful ones in Germany, which are exclusively devoted to the task of supplying food to sick persons. They are semi-charitable undertakings and the physicians are finding them a great aid in the treatment of patients in poor or moderate circumstances. The meals are delivered at the homes, kept warm in thermophore dishes.

Professor Pozzi Coming to America.—The *Revue Médicale du Canada* states that it has learned that the University of Paris has appointed Professor Pozzi as its representative to the Congress of French-speaking Physicians, to be held at Montreal, June 28. Prof. S. J. Pozzi is the famous gynecologist, editor of the *Revue de Gynécologie.* He is now in his fifty-ninth year, and will receive a warm welcome from the profession in America.

Vaccination of the Kaiser's Children.—The report has been current in Germany that the children of the imperial family had never been submitted to vaccination. The official organ of the post-graduate courses asked permission to publish a statement from the Kaiser's physician, Dr. von Leuthold, in regard to the facts. The statement was officially made that the children had all been vaccinated strictly in accordance with the ordinances and revaccinated at the proper age.

Preservation of the Old Medical School in Paris as a Historical Relic.—The city council of Paris has yielded to the pressure brought to bear by the medical profession and has decreed that the most ancient part of the old faculté de médecine in the rue de la Bucherie shall be set apart as a historical monument. The property was bought by the city eight years ago for $60,000, but nothing has been done further to date. The building will need considerable restoration before it can be utilized as a museum and library, which is the present plan. Part of some of the buildings dates from 1369, and other parts from 1499.

Syphilization of Apes on Their Native Soil.—As the anthropoid apes almost inevitably succumb rapidly to tuberculosis when imported into Europe, a project has been formed to seek them in their native haunts to carry on the research in regard to their inoculation with syphilis. An expert bacteriologist will be sent to Borneo or Sumatra with facilities for the search for an efficient antitoxin serum against syphilis, utilizing these apes for the subjects if sufficient funds can be raised for the purpose. Metchnikoff of Paris and Lassar of Berlin are the moving spirits in the project. Each of them has had remarkable success, they think, in their inoculations of chimpanzees, as duly chronicled in these columns in the last few months.

The Japanese Hospital Ships.—Japan ordered as long ago as the middle of the nineties two hospital ships to be built in England, and they have since been in readiness for a war. During peace times they are leased to a passenger and freight line, but were used for their special purposes during the campaign of 1900. They made then about fifteen trips from China to Japan, conveying nearly 3,000 wounded to the hospitals in Japan, including a number of men belonging to the European armies of occupation. Each vessel is about 300 feet long, we are informed, 40 feet wide, of 2,700 tonnage, and they are constructed so that they can be used in waters not exceeding 20 feet in depth. The upper deck is for the officers of the Red Cross Society, with saloons, bath rooms, etc. The middle deck is the hospital proper, and the lower deck for the male nurses, the store rooms, etc. Each ship has accommodations for 200 patients. Further details are given in the *British Medical Journal* for April 16, and in the *Caducée,* a French medical magazine.

The Russian Wounded.—The Russian Red Cross Society has provided supplies for 5,710 beds, in addition to the flying squadrons, the total being now 6,435. A fleet of boats is being prepared to serve as floating hospitals on the Amur and Ussuri rivers. Disinfecting battalions have also been organized. During the last war in the Far East the society spent over eight million dollars, but now has scarcely more than a third of this sum at its disposal. The nobility of twenty-five different "governments" has raised a fund of more than half a million dollars, and is applying it to the aid of the sick and wounded. The Moscow clinics have appropriated a hundred beds for the wounded returning from the war, the professors volunteering to personally defray the expense. The clinics and university of Tomsk, by imperial orders, are also being put in readiness for the reception of wounded. By the last week in March the Red Cross had despatched to the seat of war 744 persons—physicians, students, nurses and attendants, and 445 more are on the point of leaving or have gone since.

Correspondence.

The Composition of Some So-called Synthetics and "Ethical" Nostrums.

PHILADELPHIA, April 20, 1904.

To the Editor:—One of the noblest attributes of the character of an American is his desire for fair play; and one of the fundamental principles of American justice is that the accused party is considered innocent until proved guilty.

The comments published in the issue of April 16, 1904, under the above heading, insomuch as they refer to products of our manufacture, are not in accordance with the facts.

First, as to thermol, concerning which it is stated that this "wonderful new discovery is nothing but impure phenacetin." Would it not be more to the point to definitely state what that impurity is? and in what quantity? As to the explanation that "possibly traces of salicylic acid have been added to the product from time to time," that would lead one to think that salicylic acid had been added in a mechanical way merely for effect. We will state that perhaps some traces of salicylic acid may be detected from time to time, because in the process of crystallization some of the same may be split off from the original chemical compound, which is not unusual in any chemical of the kind. This same fact happened to Kraut when he crystallized his acetyl salicylic acid and led him astray on his melting point.

The chemist ascertains the composition of molecules by two methods: First, by analysis, which consists in separating the molecule into its constituent atoms. Second, by synthesis, which consists in putting together the constituent atoms to form the molecule.

Unfortunately, the chemist never lived who could make an analysis—a resolution of the whole into its first elements—of an aromatic compound of this class. Therefore, the only manner of truthfully ascertaining the composition of molecules of an aromatic compound of this character is by synthesis.

In making acetyl-salicyl-phenetidin we put the proper molecular proportions of acetic and salicylic acids into the autoclave with the phenetidin (60 pounds of salicylic acid to 59 of phenetidin) and when the chemical reaction is over we remove the newly formed chemical compound and proceed to purify the same. We first wash it with a thin soda solution to remove any uncombined acid, then we wash it with a solution of muriatic acid to remove any uncombined phenetidin. The first washing is afterward made acid with muriatic acid to recover what there is of any uncombined salicylic acid. The proportion that is recovered is but a mere trace of the total amount used, and this fact is proof positive that the salicylic acid has become part of that chemical compound. These facts we can most readily prove by the voluntary oaths of our workmen, and we can also show the signature of the most able chemist, Sadtler, to further substantiate them.

Why not let the owners of the phenacetin patent settle this matter for themselves in the United States Court?

Next, as to bismuth oxyiodid methylene digallate (named by us iodomuth), of which the article says, "according to analysis is merely bismuth gallate with a small quantity of free gallic acid; no iodin could be traced in the examined specimen." What methods were used to detect the iodin? What became of the formaldehyd that had been so firmly united to the gallic acid? Professor Sadtler demonstrated at the time when application was made for U. S. letters patent that it contained over 24 per cent. of iodin, and we can readily prove that we have never made a grain of this chemical since that demonstration except in exact accordance with the process there set forth.

Now, as to urasol, which is referred to as the "greatly boosted wonderful remedy"—acetyl-methylene-disalicylic acid —which this article says is an "impure methylene salicylic acid," that can be readily produced.

We do not deny that methylene *di*salicylic acid can be readily produced, after the idea has been created, but we do deny the ability of the critic to produce "methylene salicylic acid."

Again, as to impurity. What is this impurity? We make and sell both the methylene disalicylic acid and the acetyl methylene disalicylic acid. Which of the two was tested? There is a vast difference between them. Here, again, Professor Sadtler verified the correctness of our chemical by testing at the time of applying for patents.

Should the Heyburn Pure Food Bill become a law, it will not interfere in the least with the sale of our products in any state of our union.

Let us state in closing that this most evident partisanship is unfair. Why is not the purity of the products of our foreign competitors questioned? Perhaps they fear that the brains which produced the ideas that are responsible for these new chemicals, which have been abundantly confirmed by the United States Patent Office, might take away from them some of the profits that they have been reaping in the American market.

The able clinician's who study the physiologic actions of their remedies are able to learn the therapeutic efficiency of the same. Yours very respectfully,

S. Lewis Summers,
Organic Chemical Manufacturing Company.

Death and Blindness from Wood Alcohol.

Chicago, April 23, 1904.

To the Editor:—The following circular letter has been sent to members of the Section on Ophthalmology of the American Medical Association and to some other physicians who would be most likely to furnish the desired information. If any of your readers, who have not received the circular, will assist in the investigation, by sending a report of unpublished cases, it will be gratefully received and acknowledged:

> In my judgment the time has arrived for placing preparations containing wood alcohol on the list of poisons. It would also, in my opinion, be appropriate if the initial steps were to proceed from the Section on Ophthalmology of the American Medical Association. As representative of that body in the House of Delegates I am gathering evidence to prove the toxicity of methylated preparations, a short account of which I propose to lay, first of all, before the Section, and then, by resolution, before the House itself. In that way pressure can be exerted on the various states in the hope of inducing appropriate legislative action.
>
> Will you kindly assist in this work by sending me a short account of any unpublished case of death or blindness, *personally* known to you, that has followed the ingestion of wood alcohol? I especially desire particulars as to the form of the poison—whether taken as Columbian spirits, Jamaica ginger, essence of lemon or peppermint, cologne spirit, etc., or as ordinary beverages adulterated with methyl alcohol. The results of analyses of these preparations will be of especial value in this investigation.
>
> Occasional descriptions of methyl-alcohol intoxication are published in the smaller general medical journals or mentioned only in the local press Clippings from these sources would also be welcome.

103 Adams Street. Casey A. Wood.

Use of Ether at Battle of Wilderness.

Boston, April 23, 1904

To the Editor:—I am sorry to see in The Journal of this date a "magazine written" article, mainly for the purpose of repeating the old falsity that W. T. G. Morton discovered and introduced ether anesthesia, when he himself at first acknowledged that Dr. C. T. Jackson gave him the prescription with directions, later given to Massachusetts General Hospital and by it given to the world. Jacob L. Williams, M.D.

Marshall, Tex., April 25, 1904.

To the Editor:—It would appear to one of your southern subscribers and a son of one of those "rebels" "who did not generally fire on those wearing the ambulance badges," that the article in The Journal, April 23, entitled "The First Use of Ether as an Anesthetic at the Battle of the Wilderness in the Civil War" is more of a laudatory article on the exceptional valor of the pension drawers than one of interest to medical men. What is said of ether would not occupy ten lines in the article, which is made up of heroic federal and vanquished rebel.

Believing The Journal to be non-partisan as much for the conquered rebel as for the victorious federal, I was surprised and grieved to find any such article in its pages.

Charles E. Heartsill, M.D.,

Queries and Minor Notes.

THE SO CALLED ABSORPTION TREATMENT OF CATARACT.

Converse, Ind., April 13, 1904.

To the Editor:—Is there any remedy that will remove the opacity of the lens in the condition commonly termed cataract? Is there anything in the so-called absorption or disintegration cure? There are thousands who fall into the hands of the so-called curist. Are any cures wrought from this manner of treatment, and if so, what is it? Some have come under my observation who have apparently been benefited, but would they not have been better without any medications? M. Caton Kimball.

Answer.—The ordinary forms of cataract are due to structural changes in the lens, whose fibers, previously as transparent as clear glass, are converted into an opaque substance comparable to ground glass. In rare instances, such as in the early stages of cataract from diabetes, the opacity in the lens may be due to exudates thrown out between the fibers, and not to actual destruction of the lenticular tissues. This form of cataract is a rare exception to the rule, and if the disease that gives rise to it progresses (as it commonly does) the crystalline fibers themselves are eventually destroyed and their place taken by opaque material, as in the senile or other common forms of cataract. Bearing in mind these facts one can readily understand how absurd is the "absorption" or any other "cure" of genuine cataract. Neither manipulation of the eyeball nor local applications, however mild or severe, will avail to restore the destroyed lens fibers. One might as well expect to "absorb" an organic lesion of the cardiac valves by rubbing liniment over the left breast. Apparent improvement or cure of cataract by these methods are mostly due (1) to the imagination of the patient, (2) to the fact that the dulled vision arose partly or altogether from a curable eye disease not situated in the lens (*some corneal affection, for example*), or (3) to the absorption of a diabetic deposit in the lens substance which underwent a partial or total absorption coincident with improvement in the systemic condition. In all these cases the improvement might occur with or without treatment. It must be remembered, also, that improvement in the vision of cataractous eyes sometimes takes place for a time if the local health of the ocular apparatus is improved by rest and soothing applications, or if the pupil be kept dilated by *atropia* or other mydriatics. Finally, there are such lenticular opacities as "stationary" cataracts; the disease progresses to a *certain* extent and then, without any particular reason, remains in *statu quo* for many years. Doubtless the "absorption cure" has often received credit for this form of "improvement."

COMMISSIONS.

Richmond, Va., April 21, 1904.

To the Editor:—A and B are members of one school and C is a member of another school, A and C being surgeons, while B is a general practitioner. Because A will not divide fees with B, the latter throws his surgical cases into the hands of C, who will divide. How about the ethics involved, and would the membership of B or C in the A. M. A. be affected under the circumstances?

Query.

Answer.—Membership in the American Medical Association depends on membership in the county society, consequently the question with which our correspondent concludes is one that belongs to the county society. The Principles of Medical Ethics of the A. M. A. says: "It is derogatory to professional character for physicians to pay or offer to pay commissions to any person whatsoever who may recommend to them patients requiring general or special treatment or surgical operations. It is equally derogatory to professional character for physicians to solicit or to receive such commissions." (Sec. 4, Article 6, Chapter 2.) We answer with entire disregard of our correspondent's statement concerning "one school" and "another school."

ATAVISM IN THE NEGRO.

Salem, Mass., April 24, 1904.

To the Editor:—I have been interested in the following discussion: Can an octoroon woman married to a pure white man give birth to a pure negro child, or one of darker skin than herself? May she give birth to a white child with all the facial characteristics of the negro? Is there such a thing as a prevert in a case of this character? Authorities seem to disagree and I was informed you might give me some information. H. A. C.

Answer.—Such reversions, we believe, are not only possible but probable as occasional occurrences. These reversions are likely not to be complete, but we could not say that such would be impossible. We are under the impression—this also without support of statistics—that they are more common with the white mother and hybrid father than when the reverse is the case.

PATIENT IS FREE TO CHOOSE PHYSICIAN—CONDUCT OF LOCUM TENENS.

T. O. sends these two queries: 1. A calls B in consultation or to give anesthetic. The family are favorably impressed by B. and when next they need a physician call in B. B takes the case. Is this taking the case unfairly? If not, should B give any explanation of his conduct to A. 2. A leaves the city for a few weeks. He leaves word with certain patients that if they are ill in his absence to call in B. The patients are ill during A's absence and B is called in. On the return of A is B under any obligation to send the patients to A?

Answer.—1. B can not restrict the liberty of the patient to choose his physician and is not technically unethical in taking the case. He should not be active in the change and might well explain this to A. 2. B is practically a locum tenens for A and acts accordingly, turning over the case to A on his return. In each instance the application of the golden rule will solve the problem.

FORMULA FOR CANCER PASTE.

Granville, Fla., April 16, 1904.

To the Editor:—Kindly give me through The Journal the formula for Bougard's paste for epithelioma. A. E. Canter.

Answer.—

℞. Wheat flour and starch, of each	60 parts.
Arsenic	1 part.
Cinnabar and salammoniac, of each	5 parts.
Corrosive sublimate	½ part.
Col chlorid of zinc. at 52°	245 parts.

M. Grind the first six ingredients to a fine powder, then mix them in a mortar. Add the solution of zinc chlorid, stirring slowly. Keep in an earthen jar. Cocain may be added up to 20 per cent. to allay pain. Sig.: Apply accurately to the part; keep on for thirty hours; follow with a poultice.

SPECIALIST ON EVERYTHING—ANOTHER LETTER HEAD.

Our comment on a letter head last week has brought out another that is worthy of note. On it appears an illustration (3 by 4 inches) of a nebulizer. The wording is as follows:

OFFICE OF DR. —. —. ———.
PHYSICIAN and SURGEON.
Tel. ——-—. ——— —. ——— St.
Specialist on Obstetrics, Diseases of Women, Diseases of
Chest, Throat and Nose, Diseases of Stomach, Genito,
Urinary and Intestinal Tract, Nervous, Surg-
ical Diseases, Etc.

TURTLE SERUM.

A subscriber of St. Louis writes very indignantly regarding the letter on the above subject by Dr. Howle, of Charleston, Mo., published in this department two weeks ago. Our St. Louis correspondent thinks the letter an insult to our foreign scientific men and periodicals. He thinks that it was a sneer at rivals because they are of another nationality. We are very much afraid that hereafter we shall have to label the jokes that are allowed to appear, even though they are published for a good purpose.

NO RECIPROCITY BETWEEN ILLINOIS AND WASHINGTON.

Davenport, Iowa, April 10, 1904.

To the Editor:—Please tell me through The Journal whether the state of Washington reciprocates with Illinois, and whether my certificate of the Illinois State Board of Health will permit me to practice in Washington without further examination by that board.

J. D. Crawford.

Answer.—No.

A WORK ON CLIMATOLOGY.

Dr. A. B. Stewart, Owatonna, Minn., answering a query in The Journal, March 19, 1904, recommends as a work on climatology the one by Dr. S. Edwin Solly, Denver, published by Lea Brothers & Co., Philadelphia and New York.

Deaths.

Israel Thorndike Dana, M.D. Harvard University Medical School, Boston, 1850, one of the founders of the Portland School for Medical Instruction; for a number of years professor of materia medica and theory and practice of medicine in the Medical School of Maine; one of the founders and sometime president of the Maine Medical Association, and of the Cumberland County Medical Society; and one of the founders of the Maine General Hospital, died at his home in Portland, April 13, after a long period of enfeeblement, aged 76.

Edward J. McGorrisk, M.D. Medical Department of St. Louis University, 1855, successively surgeon of the Seventeenth Iowa Volunteer Infantry brigade and division surgeon and medical director of the Fifteenth Army Corps in the Civil War, a pioneer practitioner of Des Moines, Iowa, sometime surgeon general of Iowa, died at his home in Des Moines, April 16, after a lingering illness, aged 69.

Charles Kerr, M.D. Rush Medical College, Chicago, 1865, during the Civil War assistant surgeon of the Fifty-ninth Illinois Volunteer Infantry; a member of the American Medical Association, representative in the state legislature in 1884, a resident of Springfield, Ill., since 1885, died at St. John's Hospital in that city, April 13, from cardiac asthma, after a long illness, aged 66.

Edward H. Lee, M.D. Royal College, Würzburg, Germany, 1892, staff surgeon at Cook County, Alexian Brothers and West Side hospitals, Chicago, was almost instantly killed by falling over the railing of a staircase at the Chicago Athletic Club, from the ninth floor to the rotunda, a distance of 125 feet, early on the morning of April 24, aged 36.

David L. Bailey, M.D. New York University, 1875, first president of the Carbondale (Pa.) Board of Health, and of the Emergency Hospital; a member of the Carbondale and Lackawanna County medical societies, died at his home in Carbondale, April 13, from septicemia due to an operation wound, after an illness of one week, aged 53.

Wilbur F. Nutten, M.D. College of Physicians and Surgeons, New York, 1863, member of the American Medical Association, New York State Medical Association and Wayne County Medical Society, one of the best-known practitioners of western New York, died suddenly from heart disease at his home in Newark, N. Y., April 19, aged 64.

Edwin L. Randall, M.D. Missouri Medical College, St. Louis, 1869, dean and professor of theory and practice of medicine in Knoxville Medical College; a member of the East Tennessee and Knox County medical societies, died from pneumonia at his home near Knoxville, Tenn., April 18, after an illness of two days, aged 50.

Oscar H. Huntley, M.D. Jefferson Medical College, Philadelphia, 1856, surgeon in the First Illinois Volunteer Cavalry in the Civil War, a member of the Bureau County Medical Society and the oldest practitioner in the county, died at his home in Buda, Ill., from pneumonia, April 18.

Josiah D. McVay, M.D. College of Physicians and Surgeons, Keokuk, Iowa, 1873, member of the Iowa House of Representatives in 1883, and state senator from 1887 to 1891, died suddenly from heart disease at his home in Lake City, Iowa, April 10.

John W. Adams, M.D. Beaumont Hospital Medical College, St. Louis, 1887, professor of physical diagnosis in the St. Louis College of Physicians and Surgeons, died from heart disease at his home in St. Louis, April 9, aged 39.

Ignatz Friedmann, M.D. University of Budapest, Austria, 1866, of Cleveland, a member of the American Medical Association, was killed in that city, April 21, as the result of a collision between his carriage and a street car.

Abner Alexander, M.D. Baltimore Medical College, 1877, of Columbia, N. C., repeatedly representative from Tyrrell County in the General Assembly, died in Johns Hopkins Hospital, Baltimore, April 9, aged 65.

William T. Beach, M.D. Jefferson Medical College, Philadelphia, 1863, for many years secretary of the Schuylkill County Medical Society, died at his home in Minersville, Pa., April 8, after a long illness, aged 64.

Benson Knox, M.D. Arkansas University, Little Rock, 1886, several times president of the Hill County (Texas) Medical and Surgical Association, died at his home near Woodbury, April 15, aged 65.

C. Norton Mourning, M.D. Hospital College of Medicine, Louisville, 1900, assistant to the chair of abdominal surgery in that institution, was found dead at his home in Louisville, April 16.

Henry Polk Robson, M.D. Birmingham (Ala.) Medical College, 1902, of Snow Hill, Ala., was run over and killed while attempting to board a freight train at Wallace, Ala., April 13.

Lorenzo J. Kohnstamm, M.D. New York University, 1889, died from general paresis at the Manhattan State Hospital for the Insane, April 18, after an illness of four years, aged 42.

Charles M. Nodler, M.D. Keokuk Medical College, College of Physicians and Surgeons, Keokuk, Iowa, 1902, died at his home in Denver from tuberculosis, after a long illness, aged 44.

Deaths Abroad.

Sir Henry Thompson, Bart., F.R C.S. England, 1853; M.B. London, 1851, the eminent surgeon, teacher and writer, died at his home in London, April 18, aged 83. He was a fellow of the Royal Medico-Chirurgical Society and Royal Medical Society of London; a member of the Pathological and Harveian societies.

and an honorary member of many foreign societies. He was made professor of pathology and surgery in the Royal College of Surgeons in 1884, and was president of the Cremation Society since its organization in 1874. His most famous work was in the pathology and surgery of the prostate, bladder and urinary passages.

Samuel Smiles, M.D., Edinburgh, LL.D., made famous by his series of perseverance works, "Self-Help," "Thrift," "Character," "Duty," "Invention and Industry," and "Conduct," also a journalist and secretary of the Leeds and Thirsk and afterwards of the Southeastern Railway Company, died April 16 at his house in Kensington, London, after a long illness, aged 91. He was known as the apostle of perseverance, for perhaps no book of modern times has taught so admirably what may be accomplished by continued effort as has his volume "Self-Help."

I. Rosenthal, M.D., professor of physiology at Erlangen, and author of many papers on animal heat, calorimetry, electrophysiology, etc., died recently. His last work was a book on "Instruction in Physiology," dealing especially with its importance in the education of medical students. He advocated the use of physiology as a discipline to educate the logical powers of the student.

A. de-Martino, M.D., a prominent figure in Italian medical and political life, long professor of obstetrics at Naples and family physician to the reigning family, died at Naples, February 29, aged 84.

The Public Service.

Army Changes.

Memorandum of changes of station and duties of medical officers, U. S Army, week ending April 23, 1904:

Pipes, Henry F., and Bingham, E. G., asst.-surgeons, on arrival at San Francisco, en route to Manila, P. I., commanding general, Department of California, authorized to assign them to duty with troops going from Presidio of San Francisco to Yosemite and Sequoia National Park, Cal, for duty during season of 1904, then to proceed to Manila, P. I.

Rutherford, Henry H, asst. surgeon, granted thirty days' sick leave of absence

McAndrew, P. H, asst.-surgeon, leave of absence extended fifteen days.

Waterhouse, Sam'l M, and Edger, Benj F., Jr., asst surgeons, ordered to report in person to Lieut Col. Geo. H. Torney, deputy surgeon general, president examining board, Presidio of San Francisco, for examination for promotion.

De Witt, Wallace, asst-surgeon, granted seven days' leave of absence.

Banta, Wm P, asst. surgeon, on relief from duty at target range, Leon Springs, Texas, to proceed to Kerrville, Texas, for duty at the artillery camp at that place

Wells, Francis M, contract surgeon, has received an extension of two months to his leave of absence from the Division of the Philippines

Tignor, Edwin P, contract dental surgeon, left Fort Mackenzie, Wyo, April 15, for Fort Riley, Kan, his proper station, arriving on the 17th.

Reddy, Joseph, contract surgeon, granted two months' leave of absence from the Philippines Division,

Shellenberger, James E, contract surgeon, left Fort Ringgold, Texas, April 17, for his new station, Fort Sam Houston, Texas, and has been ordered thence to duty at the target range, Leon Springs, Texas

Navy Changes.

Changes in the medical corps, U S Navy, for the week ending April 23, 1904:

Stone, E P, surgeon, detached from the *Mayflower* and ordered to the Naval Academy.

Pryor, J. C, P. A surgeon, ordered to the Naval Hospital, Newport, R. I.

Holcomb, R. C, P. A surgeon, detached from the Naval Hospital, Newport, R I, and ordered to the *Mayflower*

Strite, C E, A A surgeon, appointed A. A surgeon from April 13, 1904

Lowndes, C H T, surgeon detached from the Naval Academy and ordered to the *Chesapeake*

De Valin, C M, P A surgeon, detached from the *Rainbow* and ordered to the *Albany*

Traynor, J P, asst surgeon, detached from the *Albany* and ordered to the *Rainbow*

Arnold, W. W, surgeon, retired from active service April 19 1904

Marine-Hospital Service.

Official list of the changes of station and duties of commissioned and non commissioned officers of the Public Health and Marine Hospital Service, for the seven days ended April 21, 1904:

Brown, B W, P. A surgeon, granted leave of absence for two days from April 25

Blue, Rupert, P A. surgeon, granted leave of absence for three days from April 19

Greene, J B, P. A surgeon relieved from duty at Havana, Cuba, and directed to report to the medical officer in command at New York (Stapleton) for duty and assignment to quarters

Holt, J M, asst surgeon, to report to medical officer in command at San Francisco for duty and assignment to quarters

McLaughlin, A. J, asst surgeon, granted leave of absence for four days from April 20

Warren, B. S., asst. surgeon, granted extension of leave of absence for one day from April 17.

Ashford, F. A., asst surgeon, leave of absence for ten days from March 28, 1904, amended so that said leave shall be for eleven days.

Altree, G. H, A. A. surgeon, granted leave of absence for five days from April 19.

Bailey, C. W., A. A. surgeon, granted leave of absence for eleven days from April 22.

Duke, B. F, A. A. surgeon, granted leave of absence for eight days from April 18.

Marsh, W. H., A. A. surgeon, granted leave of absence for five days from April 26.

Moncure, J. A., A. A. surgeon, Department letter of March 31, 1904, granting leave of absence for thirty days from April 10, 1904, amended so as to read thirty days from April 12.

Iltis, G. W., pharmacist, granted leave of absence for twenty-five days from May 5.

Medical Organization.

Illinois.

Knox County Medical Society.—At the fifth semi-annual meeting, held at Galesburg, April 19, the society adopted the standard constitution and by-laws, reorganized, and elected the following officers: President, Dr. Alexander F. Stewart, Oneida; vice-president, Dr. Lawrence R. Ryan, Galesburg; secretary-treasurer, Dr. George S. Bower, Galesburg; censors, Drs. Louis Becker, Knoxville; William O'R. Bradley, Galesburg, and Charles F. Bradway, Abingdon, and Dr. Lawrence R. Ryan, Galesburg, delegate to the state society.

Iowa.

Medical Association of Clinton County.—This association was organized at Clinton, April 13. A temporary organization was first effected, with Dr. Joseph C. Langan, chairman, and Dr. Harry R. Reynolds, secretary. The standard constitution and by-laws was adopted, after which permanent officers were elected as follows: Dr. George A. Smith, president; Dr. Herbert R Sugg, vice-president; Dr. E. L. Martindale, secretary and treasurer; Dr. John H. F. Sugg, delegate to Iowa State Medical Society; Dr. Christian Jonsson, alternate, and Drs. George Hofstetter, Joseph K. Milbourne and Robert E. Everhart, censors, all of Clinton.

Kansas.

Allen County Medical Society.—The physicians of the county met in Iola, April 13, and organized a medical society on the standard plan with 17 members and the following officers: President, Dr. Paul S. Mitchell, Iola; vice-presidents, Drs. James E. Jewell, Moran, and Joseph H. Hindman, Humboldt; secretary and treasurer, Dr. John W. Bolton, Iola, and censors, Drs. William R. Heylman, Iola, Charles W. Rennick, Gas, and Harry V. Dresbach, Iola.

Maryland.

Baltimore City Medical Society.—The Baltimore Branch of the Medical and Chirurgical Faculty of Maryland, under the new organization, met, April 15, and organized on the standard plan with the following officers: President, Dr. Harry Friedenwald; vice-president, Dr. Isaac E. Atkinson; secretary, Dr. John Ruhrah; treasurer, Dr. Thomas A. Ashby; censors, Drs. John I. Pennington, Henry B. Thomas and James M. H. Rowland; delegates to medical and chirurgical faculty, Drs. William S Thayer, Samuel T. Earle, John S. Fulton, Robert S. Reik, John D. Blake, Charles O'Donovan, Herbert Harlan, William S. Gardner, and C. Urban Smith.

Mississippi.

Hinds County Medical Society.—The physicians of the county met at Jackson, April 15, and organized a county medical society with the following officers: Dr. Thomas M. Price, Raymond, president; Dr. Archibald McCallum, Edwards, vice-president, and Dr. Osborn M. Turner, Jackson, secretary-treasurer

West Virginia.

Barbour, Tucker and Randolph County Medical Society.—The medical society of Barbour, Tucker, and Randolph counties was organized recently at Elkins, with 30 members and the following officers: President, Dr. J. Calvin Irons, Elkins; vice-presidents, Drs. S. D. Few, Parsons, and D. W. Brown, Bellington; secretary, Dr. Frank B. Murphy, Philippi; treasurer, Dr. E. H. Stump, Philippi, censors, Drs. Irwin Hardy, Davis, O. L. Perry, Junior, and Humboldt Yokum, Beverly.

Wisconsin.

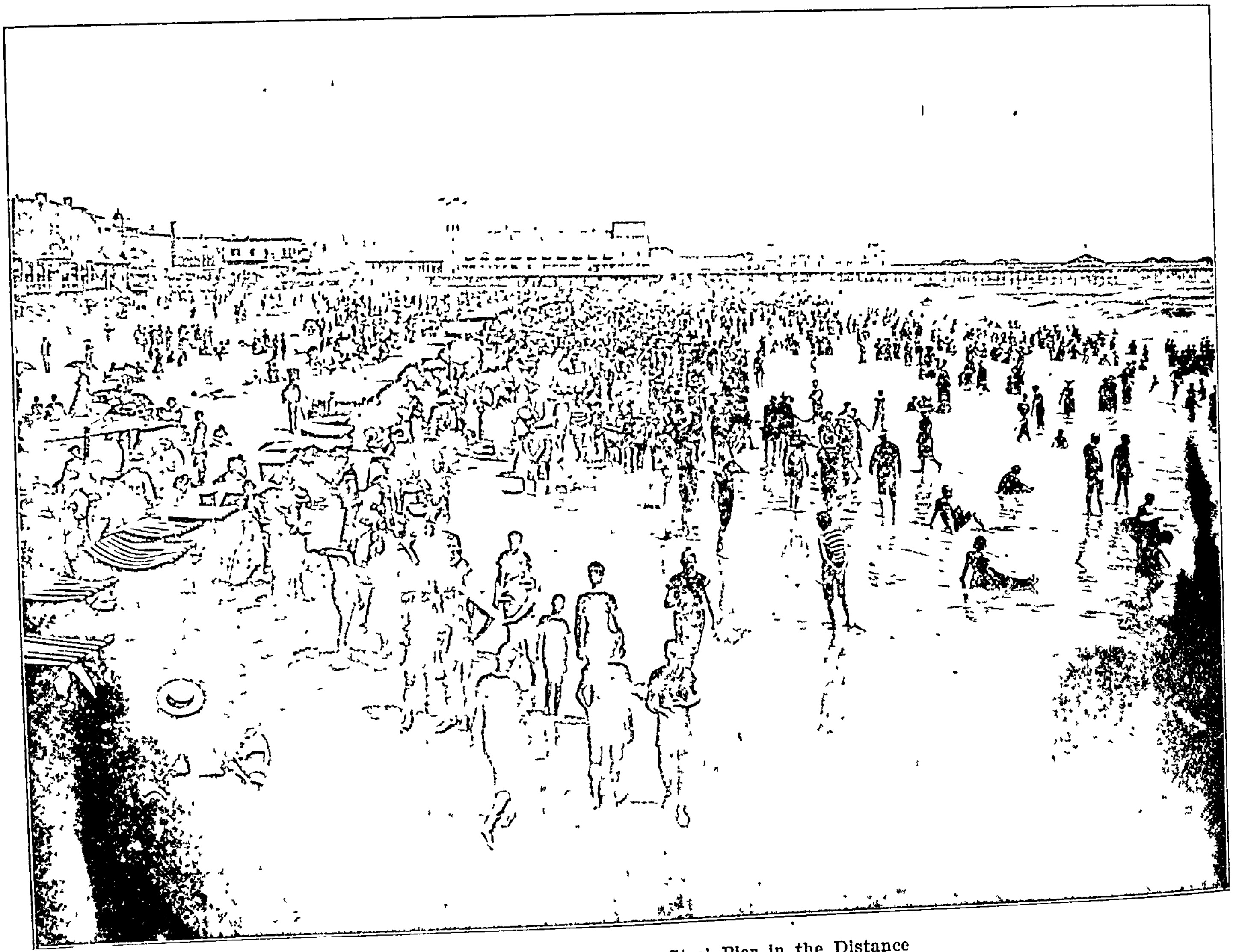
Tenth District Medical Society.—The physicians of the tenth congressional district recently met at Rhinelander and organized a district medical society, of which Dr. Ignatius D. Steffen, Antigo, was elected president, and Dr. Thomas J. Hembley, Hurley, secretary and treasurer.

THE ATLANTIC CITY SESSION

American Medical Association, Fifty-Fifth Annual Session, Atlantic City, New Jersey, June 7 to 10, 1904

THE GREATEST RESORT IN AMERICA—THE SCENE OF THE 1904 SESSION.

A few years ago an eminent physician, after spending four years in traveling through all parts of the United States, and in visiting numerous resorts for health, publicly expressed the opinion that Atlantic City was destined to become "the greatest, most popular and most widely known resort on the American Continent—perhaps in the world." That prophecy to-day is fulfilled. With a permanent population of 35,000, it stands apart, in a class of its own, distinct from the ordinary summer settlement. With a midsummer population verging on 250,000, it boasts itself to be the largest city on the Atlantic coast south of New York. With its present rate of growth and popularity as a resort for health and pleasure in every month of the year, it will in the near future attain such proportions as now it might seem extravagant to predict. And perhaps the most confidence-inspiring feature of the whole case is that all this vast development is on the sure and certain basis of actual and demonstrated worth. Atlantic City deserves to be the great resort it is and the greater resort it will be. That is the fact on which its hope is based, and of the soundness of which every appreciative visitor is speedily convinced.



Midsummer Bathing Scene; Steel Pier in the Distance

THE LENTEN SEASON.

After all that can be said of Atlantic City as a summer resort, its most charming social feature is during Lent. It is then that the fashionable hotels and boarding houses are thronged with the wealthy people, who seek seclusion and rest during the penitential season. The fashionable come from their giddy round of social pleasures, the professional men and women from their studies, the merchant from his perplexing ledger, the politician from his nagging constituents, and youth and beauty to see and be seen of each other. It is the season of quiet, but is not devoid of pleasure. There are dainty musicales, readings and recitals almost nightly in the hotels. The great cosmopolitan throngs have not yet invaded the hotels, quiet dignity prevails and the hotel colony takes on much of the appearance of a family reunion. It is a season when lasting friendships, not petty flirtations, obtain; when the effervescence is missing, and the solid, tangible side of life is in evidence.

A YEAR-ROUND HEALTH RESORT.

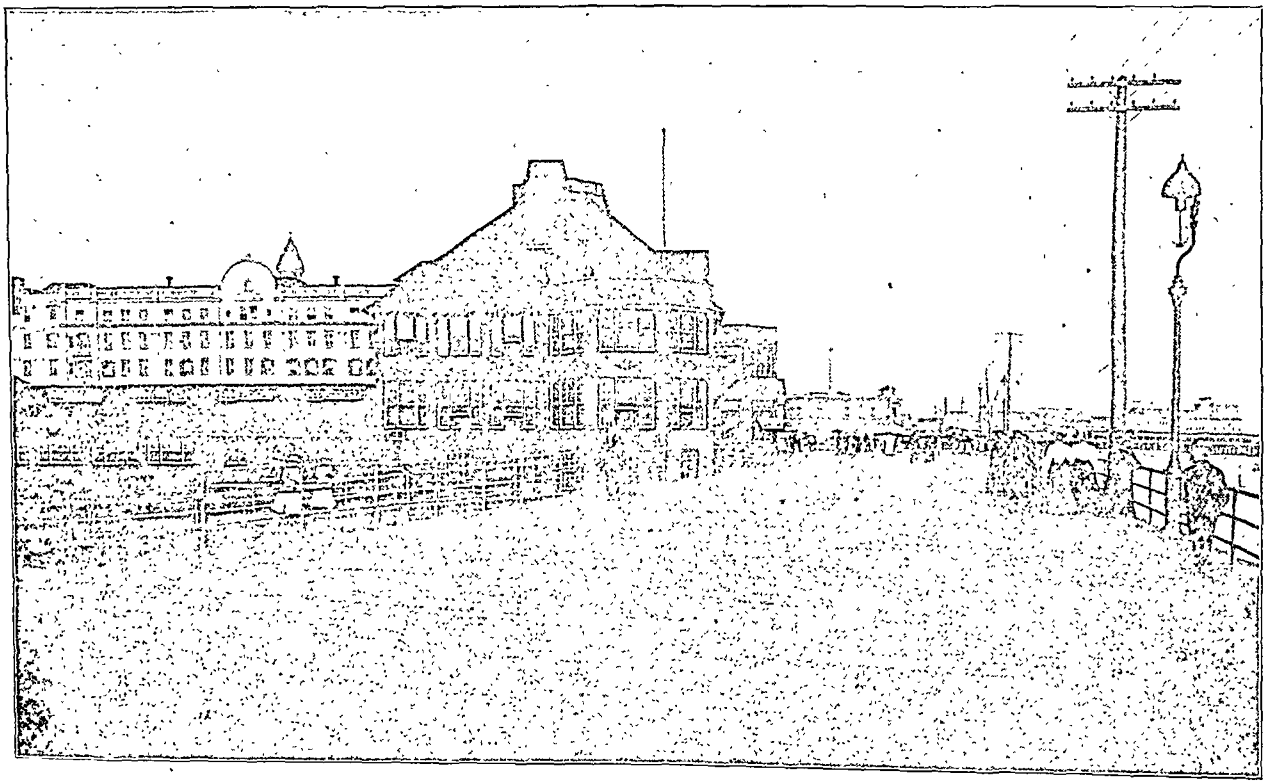
The visitor at this season need dread no discomfort, but rather look forward to all the comforts of home, doubly magnified. The rooms will be steam heated and electric lighted. He may bathe in salt sea water with the winter chill extracted, may read or dream before a glowing open-grate parlor fire, wander through tropical-like conservatories or bask in warm sunshine, and from behind the clear glass inclosures of the sun parlors watch the ocean in its moments of anger or placidity. He may breakfast, lunch and dine on the finest that the land affords, and, in short, live like a prince, with naught to annoy and everything to please and entertain.

Many of the more recent visitors to Atlantic City do not know that although the history of the place as a pleasure resort dates from the time of its founding in 1854, exactly fifty years ago, it was not until more than twenty years later that it became known as a health resort and sanitarium. To-day there is no northern winter resort so popular and none so urgently recommended by physicians as Atlantic City.

The fame of the resort is grounded not alone on those qualities which have established its pre-eminence as a summer resort, nor on those which give it prominence as a winter resort. It is a health resort, as well as a great seaside city, where, throughout the year, people from every state crowd its hotels and lounge on its famous Boardwalk.

Several elements combine to produce the tonic and resting effects of the Atlantic City air, chief of which is the presence of a large amount of ozone—the stimulating, vitalizing principle of the atmosphere. Ozone is a tonic—it strengthens the respiratory organs and helps the whole system. It follows naturally that the circulation is improved, tone is given to the stomach, the liver is excited into healthful action and the whole body feels the benefit.

For the man or woman who is brain-weary and breaking down under the weight of business, professional, social or domestic cares, there is no better restorative than a season of rest and recreation at Atlantic City. With increased bodily vigor comes the gentle ministration of tired Nature's sweet restorer. This is a sure sign that the nerves are being well rested.



Brighton Casino. Meeting Place for Section on Nervous and Mental Diseases.

Persons who could scarcely walk at home, after a few days' stay in Atlantic City, stroll long distances on the strand or Boardwalk, with only a cheerful sense of weariness that is soon succeeded by a sharpened appetite, the reward of agreeable exercise. Few, indeed, who visit this resort fail to experience a marked improvement in appetite.

THE HOTELS.

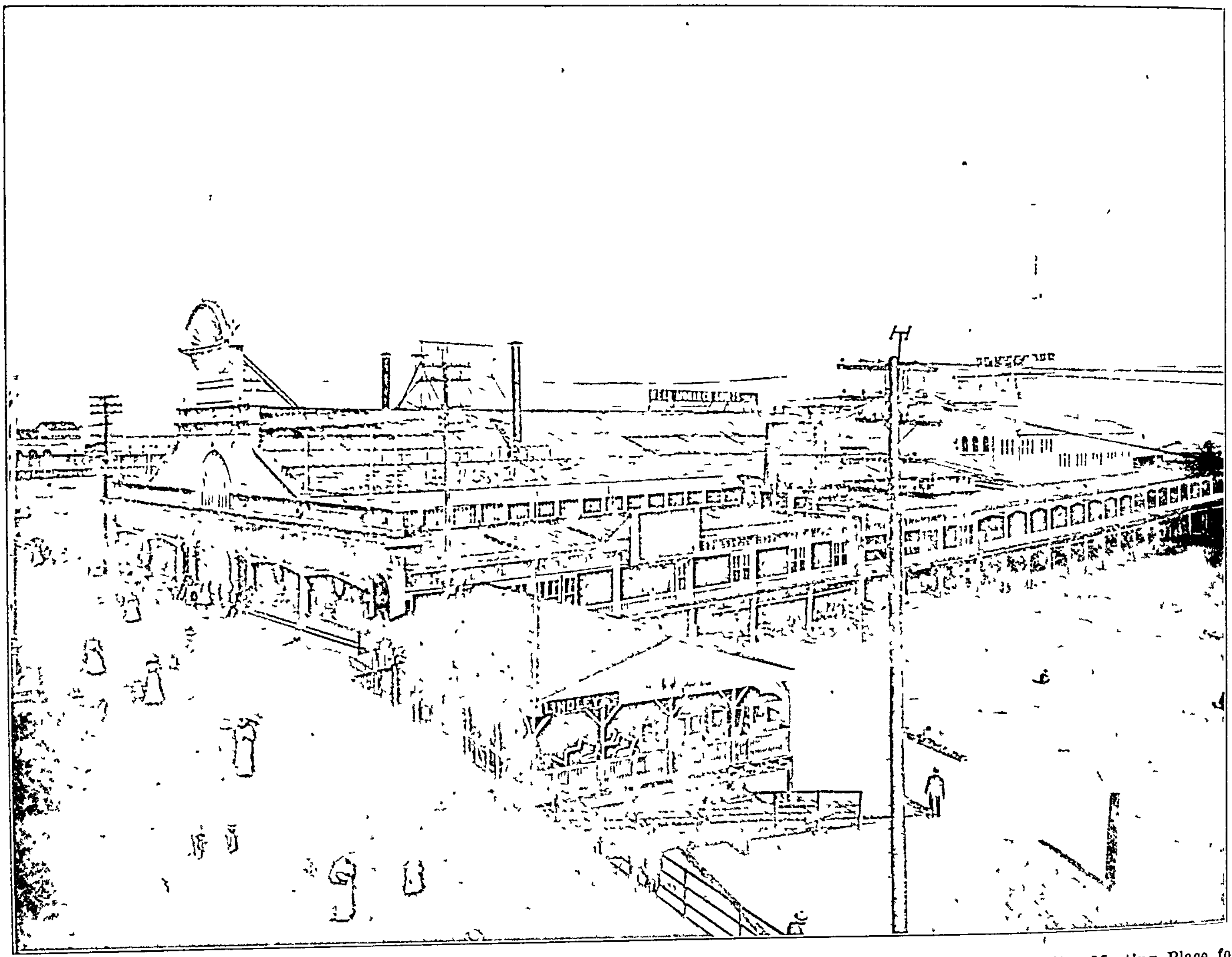
No city in the world has as many well-appointed hotels, in proportion to the population, as this great seaside resort. Beside the large number of first-class hotels, there are many more of the second class, and hundreds more of desirable boarding houses, where the rates are such as to astonish those who are accustomed to the extortionate charges at other resorts. Of these hotels and boarding houses—700 in all—too much can not be said. They range from the rivals of the finest in the world to the quiet, home-like boarding houses found in every large city. In point of equipment and inviting comfort they are unexcelled, and being almost without number, they stand to satisfy the vagaries of every applicant. Altogether, they will accommodate not less than 200,000 visitors. The Committee on Hotels makes the following report:

A LIST OF HOTELS AND PRICES.

Out of the many hotels the committee has selected the following, which they can recommend. Comfortable board may be obtained in Atlantic City from $1 per day upward. The minimum rates apply to single rooms without baths, while the per capita rate per day for double rooms in most cases can be slightly reduced when two occupy the same room. For those wishing accommodations on the European plan, the Dunlop and Young's Hotel are exclusively European; the Grand Atlantic, the Wiltshire, the Garden, the Islesworth, and the Rudolf. The prices given below cover the American plan, except those furnishing accommodations on either European or American plans, referring to the Dunlop and Young's Hotel.

RATES PER DAY ON AMERICAN PLAN.

Bouvier	$1.50	and up.	
Roxborough	1.50	to	$2 50
Revere	2.00	to	2 50
Altamont Craig Hall	2.00	to	3.00
Archdale	2.00	and up.	
Belmont	2.00	and up.	
Berkshire Inn	2.00	to	3 00
Chester Inn	2.00	to	2 50
Dunlop, $2 00 to $3.00, European exclusively.			
Young's Hotel, $2.00 to $3.00, European exclusively.			
New Hygeia	2 00	to	3 00
Albemarle	2.00	to	3 50
Arlington	2.00	to	3 50
Holmhurst	2.00	to	4.00
Champlain	2.00	to	4 00
Kenilworth Inn	2 00	to	4 00
Hotel Majestic	2.00	to	4.00
Hotel Boscobel	2.00	to	6 00
Chatham	2.50	to	3 00
Glaslyn	2.50	to	3 00
Hotel New England	$2.50	to	$3 00
Ponce de Leon	2.50		
Wiltshire (also European)	2.50	and up	
Hotel Imperial	2 50	to	3 50
Hotel Shoreham	2 50	to	3 50
Loraine	2 50	to	3.50
Rittenhouse	2 50	to	4.00
Grand Atlantic (also European)	2.50	to	5 00
Raleigh	3.00		
Hotel Gladstone	3 00	to	5 00
Hotel Savoy	3.00	to	5.00
Hotel Strand	3 00	to	5 00
Haddon Hall	3.00	to	7 00
Islesworth (also European)	3 00	to	8.00
Shelburne	3 00	to	8 00
Seaside	3 50	to	4.00
Rudolf (also European)	3 50	to	5 00
Garden	3 50	to	6 00
Hotel Dennis	3 50	to	6 00
Royal Palace	3 50	to	6 50
Hotel Windsor	3.50	to	7 00



Young's Ocean Pier. General Headquarters for Bureau of Registration, General Sessions and Scientific Exhibit. Meeting Place for Section on Diseases of Children.

Hotel Chelsea	$4.00	and up.	
St. Charles	4.00	and up.	
Hotel Traymore	4.00	to	$8.00
Hotel Brighton	4.00	to	10.00
Marlborough House	4.00	to	10.00

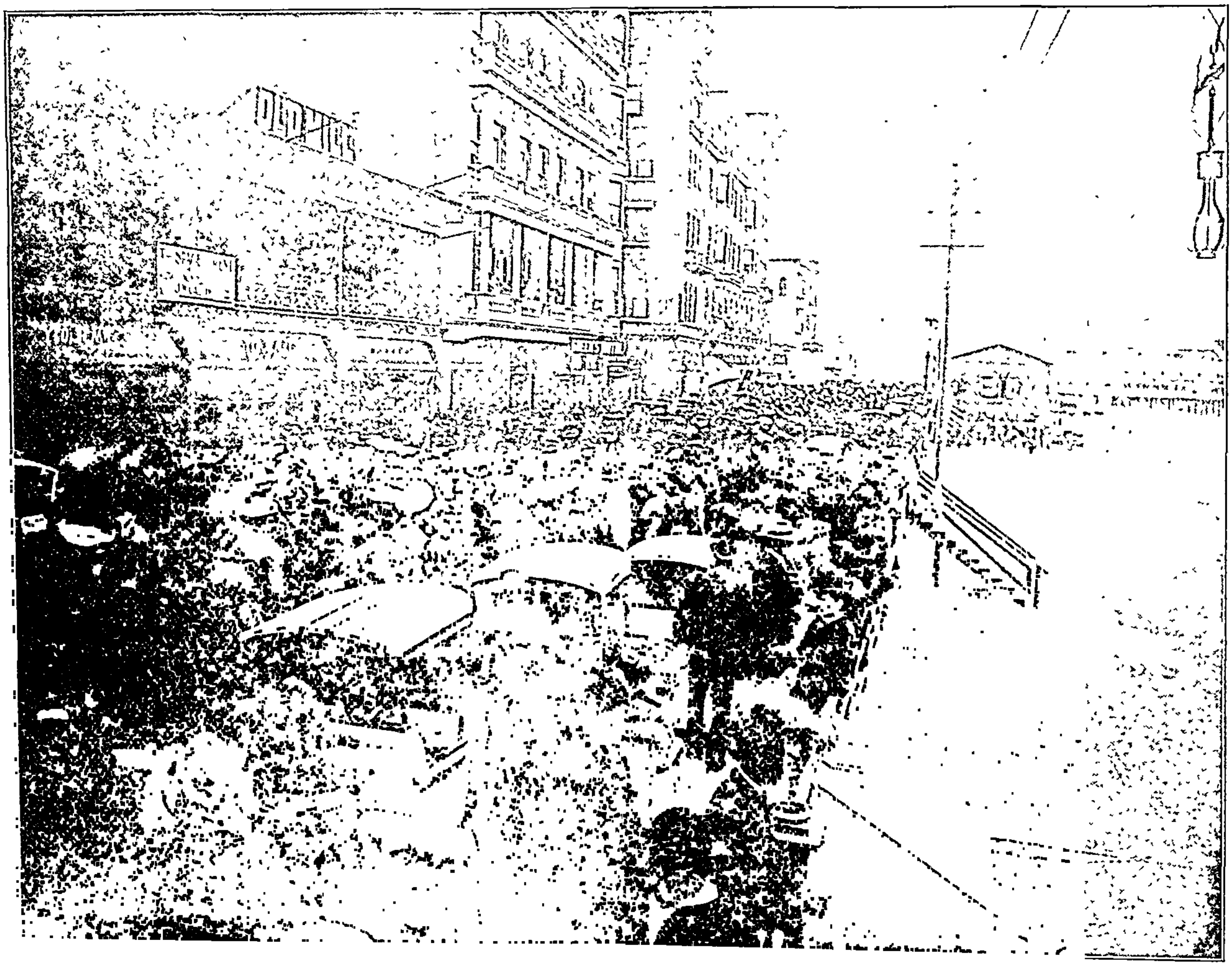
In order to get good accommodations, engagements for rooms should be made without delay. The committee will be glad to furnish any information desired, and will be pleased to engage quarters at the various hotels, or physicians may write to the hotel direct.

WM. EDGAR DARNALL,
Chairman Hotel Committee.

The rolling chairs for invalids and well people who are averse to walking on the Boardwalk, are a great convenience to the thousands of hotel guests. The elevators in the hotels start from the ground floor, and invalids may be wheeled in from the street to the elevator, thence to an upper balcony or to the bedroom, without leaving the chair.

Atlantic City is not a watering place in the sense that the term generally applies. It is, as has been stated, a seaside city, with a permanent population of about 35,000, and more than $75,000,000 of taxable property. All of the advantages of a well-organized municipality are offered, with the added attractions of a perfect health and pleasure resort. Well-paved streets, beautiful residences, a very efficient fire department and police force, over a score of churches, including all denominations, ample telegraph and telephone systems and connections, several steamship lines to adjoining resorts and other features might be mentioned as evidence of the attractions of the city.

In point of accessibility, Atlantic City possesses advantages unequaled by any other resort in America. It is connected with Philadelphia and with all the railroads centering there by numerous through trains, which make the run in sixty minutes, while with New York and the East there is ample communication by through trains, which make the run from New York to Atlantic City in three hours. From the West and South, passengers are conveyed via Philadelphia, across the Delaware River bridge, without change of cars.

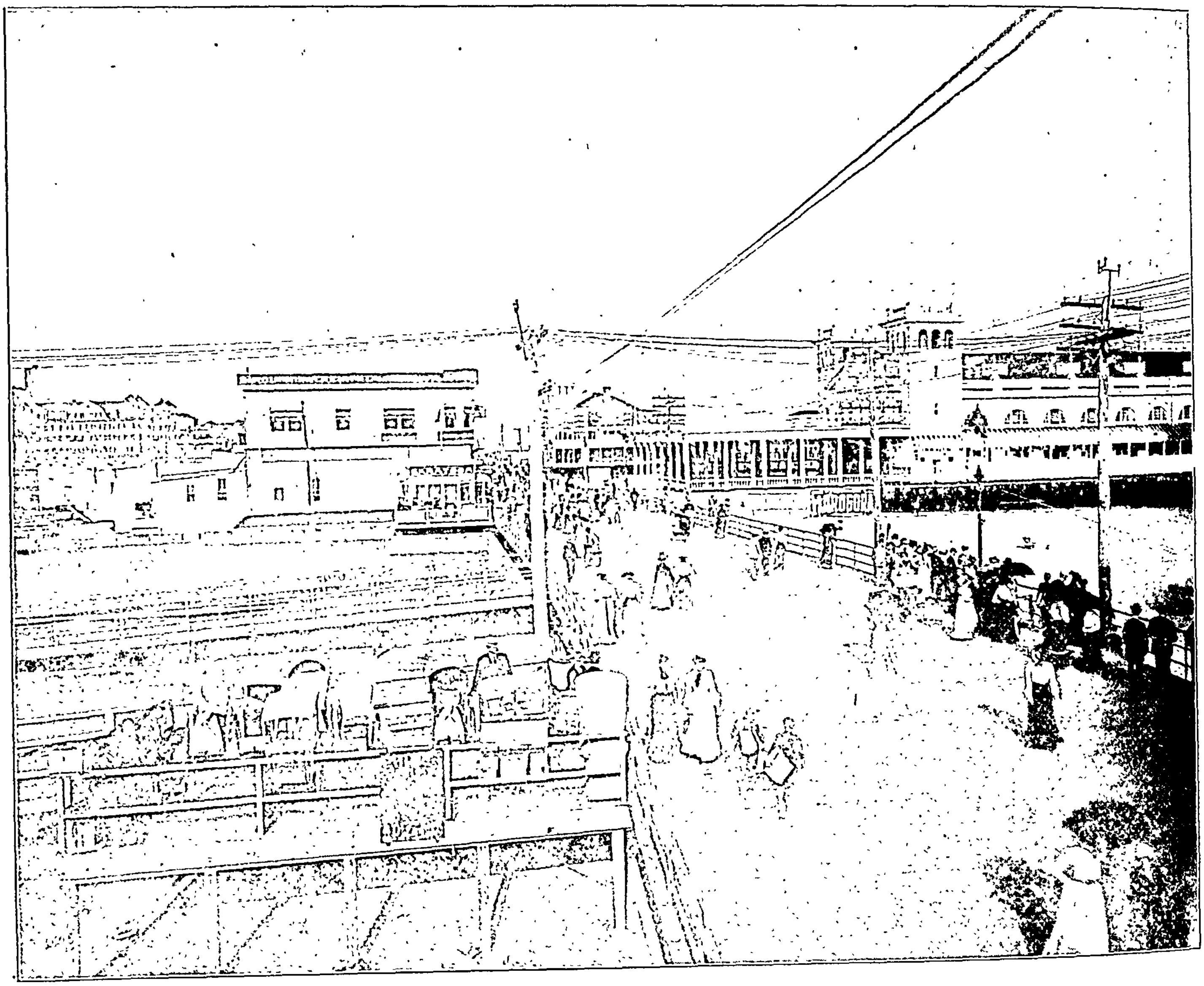


Showing the Easter Visitors (Easter Sunday, 1904).

Atlantic City long since learned how best to provide for the health and pleasure seeker, and it is now the business of the resort to set forth its varied attractions, which are all in the direction of making one's stay delightful. Hard to amuse, indeed, would be the visitor who could not find some congenial diversion ever close at hand, every day in the week and every week in the year. Atlantic City, indeed, is the nation's playground, its public park, its place of perennial pleasure. In the charms of novelty and ever-shifting variety it surpasses any other city in the East, the West, the North, or the South.

FISHING AND BOATING.

The water attractions of Atlantic City are unique. A fleet of yachts, unexcelled anywhere in the country, furnish sailing on the ocean's billows, calm and peaceful at times, and at other times as rough and as boisterous as one could wish; or, if one perfers, he can glide over the smooth waters of the bays and inlets, without the slightest danger of seasickness. Then there is the deep-sea fishing "outside," or what is more inviting to some, the sport of catching sea bass and weak fish "inside."



Showing Steel Pier in the distance. Steeple-chase Pier in the foreground.

THE GOLF LINKS.

One of the crowning features of Atlantic City's environs is the magnificent home of the Country Club, with its elegant golf grounds. The links have eighteen holes, overlooking Lake's Bay, and are in close proximity with a five-mile-wide meadow, where game is plentiful. In the picturesque distance the ocean and variegated horizon make a glorious silhouette to the east, while the western wildwood and evergreen pines give the surroundings a most delightful appearance.

BATHING.

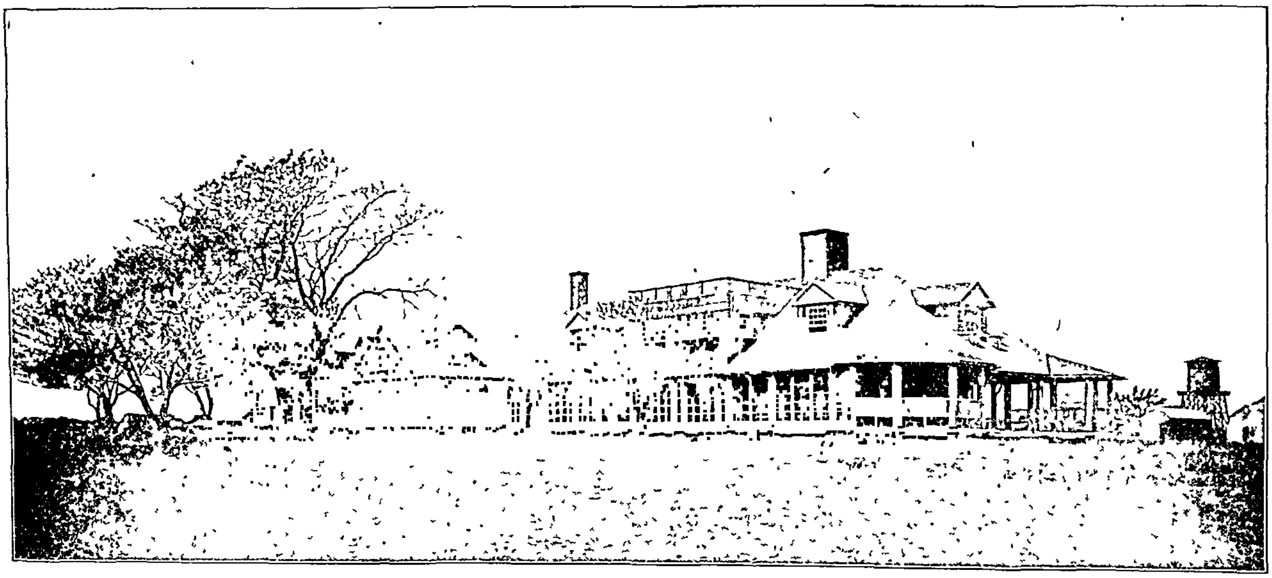
The pleasures of the surf bath bring multitudes to Atlantic City during the summer months, and bathing here attains a popularity unknown to more northern resorts. The near approach of the Gulf Stream to this point increases the temperature of the water to a delightful degree, and takes from it the bitter chill from which so many would-be bathers shrink. At the fashionable hours of bathing, from 11 to 1, the beach is crowded with thousands of merry bathers, whose shouts and laughter mingle with the roar of the surf. The bathing is superb, especially after the summer's sun has warmed the ocean to suit those who are averse to the first cold dip in springtime. The bathing is as safe here as anywhere in the world, and considering the many, many thousands who bathe annually, the drownings are very few.

Bathing at Atlantic City begins earlier and continues longer than at any other seaside resort along the eastern coast of the United States. The bathing beach—which is backed by the Boardwalk with its crowd of interested spectators—will accommodate a million people in comfort; some lying on the sand or strolling about; some wading in the shallows, and others swimming out boldly in the depths. This remarkable stretch of sand is free from stones or gravel, and is as nearly perfect as any bathing resort.

THE FAMOUS BOARDWALK.

The Boardwalk is the greatest promenade of its kind in the world; it is solidly built of steel and is forty feet wide. Bounded by a strong iron fence, it reaches from one end of the city front to the other, and will accommodate at one time more than a million persons without unpleasant crowding. The prominent hotels are situated close to it and are entered from it, while innumerable stores, bazaars, restaurants, curio shops, picture galleries and every sort of place of amusement that ingenuity can devise, make a kaleidoscopic picture that is seldom equaled.

The life, the light and the color that one sees on this promenade are indescribable. It is an endless dress parade—a grand review—in which everybody is one of the reviewers, as well as one of the reviewed. The animation, the overflowing good nature, the laughter and contagious hilarity of this restless throng are irresistible. The lights from the scores of bazaars, the buoyant merriment of the children, the soft, melting colors of the summer dresses of the women, the freshened loveliness of the women themselves, and the thousand and one little scraps of life and tone that line the thoroughfare, all blend in a picture that is warranted to banquet the eye and rest the mind of anyone who is not utterly lost to every sense of enjoyment.



Atlantic City Country Club at Northfield. May be reached by trolley.

Nowhere in the world is there such a kaleidoscope of beauty, such a panorama of wonders, as one sees on this great ocean promenade. An annual visitor said: "I have been to every prominent seaside resort and spa in Europe, and I know whereof I speak when I say that nowhere is there a resort that can in any way approach Atlantic City. In addition to the unusual opportunities for enjoyment, it is unquestionably the healthiest place in America."

From this Boardwalk there extend out into the sea several piers, on which are pavilions and theaters. All day long something is happening here for the enjoyment of the thousands of visitors. Concerts of high excellence are given by bands of music, and amusements of varied sorts are taking place in profusion. One of these piers is a steel pier, which extends 2,800 feet into the ocean.

THE PLACES OF MEETING.

Some of the sessions of the American Medical Association will be held in the Marine Hall, an immense auditorium on this steel pier directly over the ocean. Delegates, while considering the important matters pertaining to the convention, and hearing what others have to say, may also listen to what the wild waves are saying the whole day long, meantime inhaling life-giving ozone at every breath. Young's pier is a short distance away, and in its immense shore-end pavilion are to be located the meeting places of several sections, as well as the Registration Bureau, the Scientific Exhibit and the Drug and Instrument Exhibit. A list of the various meeting places follows:

MEETING PLACES.

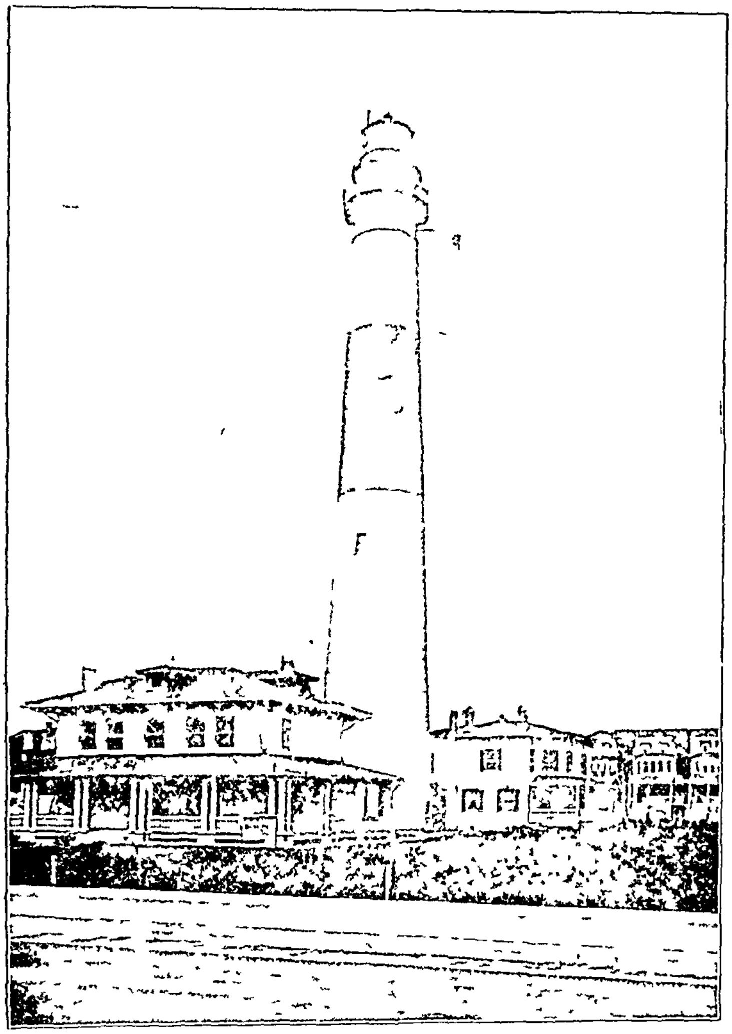
General Sessions	Young's Pier.
Registration Bureau	Young's Pier.
Practice of Medicine	Young's Pier.
Scientific Exhibit	Young's Pier.
Diseases of Children	Young's Pier.
Surgery and Anatomy	Steel Pier.
Ophthalmology	Steel Pier.
Obstetrics and Diseases of Women	Steel Pier.
Laryngology and Otology	Steel Pier.
Hygiene and Sanitary Science	Garden Hotel.
Stomatology	Islesworth Hotel.
Nervous and Mental Disease	Brighton Casino.
Cutaneous Medicine and Surgery	Shelburne Hotel.
Materia Medica, Pharmacy and Therapeutics	Young's Hotel.
Pathology and Physiology	Green's Hotel.
House of Delegates	High School.

HEADQUARTERS OF THE SECTION OFFICERS.

The following hotels are the general headquarters of the various sections. The Marlborough House is the general headquarters of the American Medical Association:

Practice of Medicine	Traymore and Gooden.
Obstetrics and Diseases of Women	St. Charles.
Surgery and Anatomy	Haddon Hall and Islesworth.
Hygiene and Sanitary Science	Gooden.
Ophthalmology	Seaside.
Diseases of Children	Dennis.
Stomatology	Islesworth
Nervous and Mental Diseases	Brighton.
Cutaneous Medicine and Surgery	Shelburne.
Laryngology and Otology	Strand.
Materia Medica, Pharmacy and Therapeutics	Young's.
Pathology and Physiology	Windsor.

It must not be supposed that all the enjoyment, all the recreation, all the benefits of a visit to Atlantic City are confined to the summer months. The witching charms of autumn sea and sky, hold many a summer visitor even until the ides of November. Indeed, not a few linger until December, and ere the holiday festivities are fairly over at home, the first company of winter visitors has arrived, harbingers of that larger company whose appearance marks the advent of February.



The Absecon Light

The "season" in Atlantic City, the reader will infer, continues throughout the year. The perennial visitor finds here, forsooth, an ever-changing but never-ending season. The resort's response to Spring's passionate wooing is a simple invitation to "come." In the springtime, particularly in March and April, the devotees of Dame Fashion, banishing all desire for social pleasure at home, hasten to Atlantic City to enjoy new pleasures and new life amid old friends and old scenes.

In summer time the joys of other days are forgotten Life, animation and happiness go hand in hand, and pleasures abound on every side. The spell is irresistible; the charm contagious.

When mellow autumn comes and the year puts on her visionary tints, Atlantic City again bids you "come." The air is pregnant with health and the breezes are a tonic to mind and body. It is even said that the sunshine of October intoxicates with excessive healthfulness. At this season there is a tranquillity unknown to summer visitors. The sea of human faces has ebbed, and there is relief in the absence of the surging, ever-changing crowds of summer time.

Sun parlors, pavilions, rolling chairs and carriage drives along the glittering strand or over the stone roads—these and other pastimes appeal to the easy-going, pleasure-loving visitors. The bathing in September and October is delightful, and the fishing, crabbing and boating are at their best.

Sufferers from autumnal catarrh, a form of hay fever, enjoy great relief in Atlantic City. Delicate people and those susceptible to the malarial and typhoid influence of the autumn also enjoy immunity from these affections in Atlantic City.

To the well, during the fall months, there is little attempt at indoor pleasure in daytime—at least not until November. Even the card tables are deserted for the rod, the gun or the sail, and those who are not experts with these traverse the beach and Boardwalk in quest of other forms of pleasure.

In the heart of winter social life plays a great rôle. The amusements consist chiefly of musicales, theatricals, dances, receptions, card parties, readings, lectures and a round of gayeties at the hotels and cottages.

Thus the days, the seasons and the years come and go. Every day has its pleasures, every season its charms and every year its changes. As "Queen of the Coast," Atlantic City worthily wears her crown.

Nowhere else in America is there such magnitude of relaxation. Day after day, from early morn to midnight, it presents itself along that riparian plaisance, the Boardwalk. Nowhere else do the social extremes come nearer to touching each other without friction or unpleasant lines of demarcation.

The "season" at Atlantic City, as we have seen, does not end with the close of the Lenten and post-Lenten pastimes, nor with the recession of the summer procession. In truth, the "season" at Atlantic City, as has been stated, never ends. The year begins with the midwinter season, which imperceptibly blends into the Lenten season, which blossoms into the brilliant Easter season, which runs on to the regular spring season, which is a prelude to the midsummer season, which is followed by the late summer and early fall season, which gives way to the regular autumn season, which brings us to the holiday season, which makes both ends meet by linking on to the midwinter season.

OTHER MEETINGS AT ATLANTIC CITY.

As is customary, several of the specialists' societies are to meet in Atlantic City just before or just after the session of the American Medical Association. These are mentioned in another column in the list of "Coming Meetings," under the heading of "Society Proceedings." Among others is the American Academy of Medicine, which will hold its twenty-ninth session. This organization will take up the reports of committees on the National Bureau of Medicine and Foods, on the teaching of hygiene in the public schools, and on medical education.

The next session of the Association of American Medical Colleges will be held in Atlantic City, Monday, June 6. At the educational session at 10 a. m., to which visitors are invited, there will be the following program:

President's Address. J. R. Guthrie, Dubuque, Iowa.

Under What Conditions Should a Medical College Give a Student Advanced Standing? William H. Wathen, Louisville, Ky.

What Credit, If Any, Should Be Given by Medical Colleges to Holders of Baccalaureate Degrees? Mr. Henry L. Taylor, Albany, N. Y.

A Plea for Uniform Curricula in Medical Colleges. George M Kober, Washington, D. C.

This program is preliminary, and other papers may be added.

At 2:30 Monday afternoon the business meeting will be held. The secretary-treasurer of the association is Dr. Fred C. Zapffe, 1764 Lexington Street, Chicago. The dean of each college holding membership in the association is its accredited representative at this meeting. Representatives other than the dean must present signed credentials. Each college is entitled to one representative.

RAILROAD RATES.

The prospect of a large attendance at Atlantic City, one which will, perhaps, be the largest of any session the American Medical Association has yet held, depends on two facts. The profession was never so well organized as at present, and the railroad rates have never been so favorable. The low rate, combined with the nearness of Atlantic City to the large cities of the East, where the American Medical Association has so many members, make the prospects very bright for this session.

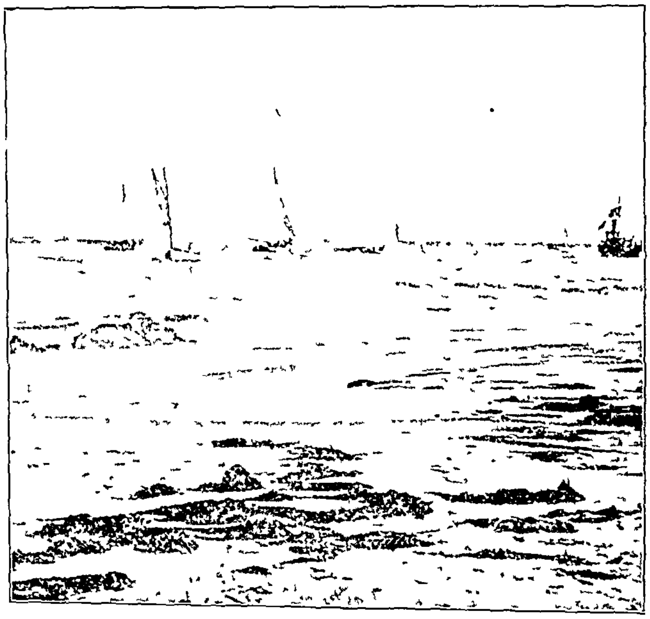
The Trunk Line Association has granted a rate of one fare plus $1.00 for the round trip, except within 100 miles of Atlantic City. Within the 100-mile radius the regular excursion fare will apply. The tickets are to be for continuous passage and must be deposited with the joint agent on arrival at Atlantic City for his indorsement, but on returning, stop-overs will be allowed at Philadelphia, Washington and Baltimore. These tickets will be sold and will be good for passage June 1, 2, 3, 5 and 6, and will be good for return leaving Atlantic City June 4 to 13, inclusive.

The Central Passenger Association has granted the same rates The Western Passenger Association has granted a rate of one fare plus $2.00 for the round trip, tickets on sale June 1 to 4, and good returning till June 13, with privilege of extension under certain conditions. Stop-overs will be granted as above. Information from other passenger associations indicates that most of them will grant similar rates.

SPECIAL TRAINS AND EXCURSIONS.

As is usual, various trains will be run through various parts of the country; Iowa, Missouri, the Northwest and some parts of the South will have their special trains. At least one special will be run from Chicago over the Pennsylvania System, and will leave Chicago Sunday, June 5, at 2 p. m. There will probably be at least two sections, as many western parties will arrange to take this train. This will be an elaborately fitted and complete train, and a most enjoyable time may be expected by the travelers.

A number of excursions can be arranged from Atlantic City, others from New York City, following the session. Large delegations are expected to stop in Philadelphia, both before and after the meeting, to attend the clinics. In this issue will be found a complete schedule of these clinics that have been arranged for the members of the Association in Philadelphia.



The Beach Toward the Inlet.

Another event is the unveiling of the Rush Monument, in Washington, Friday afternoon, June 10. Members of the Association will go in a body to witness this long-looked-for event.

ENTERTAINMENTS.

Atlantic City is a most delightful place in its social life. Those who attended the last session need no reassurance as to the prospect of an enjoyable time socially. The local committee on entertainment is preparing various enjoyable functions, and will give special attention to the events for the wives and other ladies who accompany the members, so that the time shall pass pleasantly for them while the physicians are engaged in the scientific work of the meeting.

ATLANTIC CITY COMMITTEES.

The experience gained in the session of 1900—which was held at Atlantic City—has been of great value to the local committees in charge of the arrangements for this year. They report that matters are well in hand, and that affairs are working smoothly. The efficient local Committee of Arrangements consists of Dr. B. C. Pennington, chairman; Dr. J. A. Joy, treasurer; Dr. E. A. Reilly, registrar; Dr. Philip Marvel, secretary.

The special committees whose active chairmen are looking after the details assigned to their respective departments are:

Dr. W. Blair Stewart, Finance.
Dr. Walter Reynolds, Halls and Meeting Places
Dr. E. A. Reilly, Registration.
Dr. A. D. Cuskaden, Exhibits.
Dr. Theo. Senseman, Entertainments.
Dr. E. C. Chew, Bureau of Information
Dr. Emery Marvel, Banquets
Dr. Edward Guion, Printing.
Dr. W. E. Darnall, Hotels.
Dr. Joseph F. DeSilver, Badges, etc.
Dr. W. P. Conaway, New Membership
Dr. J. M. Marshall, Transportation.

RUSH MONUMENT DEDICATION.

DESCRIPTION OF THE STATUE AND THE MONUMENT THAT ARE TO COMMEMORATE THE LIFE AND WORK OF THIS GREAT PHYSICIAN.

We reproduce this week illustrations[1] of the Rush Monument, which is to be dedicated at Washington, D. C., on the afternoon of Friday, June 10. Definite arrangements have not yet been made, but it is probable that a special train or trains will be run from Atlantic City to Washington for the accommodation of the members.

The illustrations show the general character of the monument. Dr. Rush is represented in a walking attitude, with paper and pen in his hand, apparently lost in thought. The general scheme is a simple one, and carries out the old idea of representing the subject as a full standing figure, on a pedestal somewhat higher, the whole resting on a base of three steps. To give this old idea any originality was difficult, but the architect has treated the subject in a particularly striking way by making the entire pedestal circular, something seldom attempted, and by treating the moldings and the decoration in the style of Louis XVI; in other words, in that time in which Dr. Rush flourished, and by the addition of three small bas-reliefs commemorating Dr Rush's career as a physician, patriot and writer.

The choice of materials has been carefully made—the finest kind of bronze for the statue, the best Indiana limestone for the pedestal and pink granite for the steps. The base consists of three granite platforms the lower one being 12 feet 9 inches across. Surmounting these steps is a pedestal consisting of the base, die and cap of hard Indiana limestone, the total height being 10 feet 4 inches. The base of the die is 4 feet 10 inches across. The height of the figure is 7 feet 6 inches

The Statue of Dr. Benjamin Rush

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[1] Through the failure of the engravers to supply us the half tone illustration of the monument in its completeness we are compelled to omit it. It will appear next week

inches, and the plinth or base is 4 inches, making the total height of the statue alone 7 feet 10 inches.

The inscriptions, in gilt bronze, are as follows:

On the front panel: "Benjamin Rush, 1745-1813. Physician and Philanthropist."

On the right panel: "The First American Alienist."

On the left panel: "Signer of the Declaration of Independence."

On the rear panel: "Studium sine calamo somnium."[1]

The monument is being erected on the site originally designed by the Secretary of the Navy, on the elevation in the park opposite the U. S. Naval Museum of Hygiene and Medical School. The ground was broken for the pedestal March 23. The architect is Mr. Lewis R. Metcalfe, New York; the sculptor, Mr. R. Hinton Perry, and the bronze founders, the Henry-Bonnard Bronze Co., New York.

The present Rush Monument Committee consists of J. C. Wilson, M.D., Philadelphia; H. D. Holton, M.D., Brattleboro, Vt.; Frank Billings, M.D., Chicago; L. Duncan Bulkley, M.D., New York, and W. L. Rodman, M.D., Philadelphia.

The oration at the dedication will be delivered by Dr. J. C. Wilson, Philadelphia.

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[1] The Latin phrase was a favorite of Rush's, who used it in reference to his habit of making annotations as he read.

ASSOCIATION NEWS

OFFICIAL CALL.

The Fifty-Fifth Annual Session of the American Medical Association, To Be Held in Atlantic City,
June 7-10, 1904.

To the Members of the American Medical Association, and to Constituent State Associations:

The next annual session of the American Medical Association will be held at Atlantic City, New Jersey, on Tuesday, Wednesday, Thursday and Friday, June 7, 8, 9 and 10, 1904. The first general meeting, which constitutes the opening exercises of the scientific functions of the Association, will be held at 10 a. m., Tuesday, June 7.

The Registration Department will be open from 8 a. m. to 5:30 p. m., on Monday, Tuesday, Wednesday and Thursday, June 6, 7, 8 and 9, and from 9 to 11 a. m. on Friday, June 10.

NEW MEMBERS.

Those who join the Association at its annual session must present certificates of membership in good standing in their state association or in one of its affiliated branches.

THE HOUSE OF DELEGATES.

The House of Delegates of the American Medical Association will convene at the High School Building, Atlantic City, New Jersey, at 10 a. m., Monday, June 6, 1904. Each constituent state and territorial association is entitled to one representative for each 500 of its resident regular members, or fraction thereof. "State associations or societies in counting members for a basis of delegate representation in this House shall count only members in good standing, who pay regular dues to the state association, either directly or indirectly through county societies."

"Members of the House of Delegates shall be elected for a term of two years, and those state and territorial associations entitled to more than one representative are requested so to arrange such elections that one-half of their delegates, as near as may be, shall be elected each year." (Chap. III, Sec. 4, By-Laws.)

George H. Simmons,
Secretary.

Frank Billings,
President.

THE OFFICIAL PROGRAM.

In order to avoid misunderstandings and to protect the interests of advertisers, attention is called to the fact that there is but one official program. This program is copyrighted by the Board of Trustees and contains no advertising matter. It will not be distributed until the week of the session.

MEETING OF COMMITTEE ON MEDICAL LEGISLATION.

A meeting of the National Auxiliary Congressional and Legislation Committee will be held at 2:30 p. m., Wednesday, June 8, at the High School Building, Atlantic City, according to the call issued by the chairman, Dr. Charles A. L. Reed, Cincinnati.

ASSOCIATION COMMITTEES.

List of Standing Committees of the Association and their Chairmen and Members.

Following is a list of the standing committees of the Association:

Committee on Award of Association Medal.—Lewis S. McMurtry. Louisville, Ky., chairman; Burnside Foster, St. Paul, Minn.; M H. Fussell, Philadelphia.

Committee on Award of Senn Medal.—James H. Dunn, Minneapolis, chairman; M. L. Harris, Chicago; Floyd W. McRae, Atlanta, Ga.

Committee on Scientific Exhibit.—F. B. Wynn, Indianapolis, chairman.

Committee on Scientific Research.—Alfred Stengel, Philadelphia, chairman; William Osler, Baltimore, and L. Hektoen, Chicago.

Committee on Organization.—J. N. McCormack, Bowling Green, Ky., chairman; P. Maxwell Foshay, Chicago; George H. Simmonds, Chicago.

Committee on Rush Monument.—James C. Wilson, Philadelphia, chairman; Henry D. Holton, Brattleboro, Vt., treasurer; Frank Billings, Chicago; L. Duncan Bulkley, New York; Wm. L. Rodman, Philadelphia.

Committee on National Legislaton.—Charles A. L. Reed, Cincinnati, Ohio, chairman, one year; W. L. Rodman, Philadelphia, two years, and William H. Welch, Baltimore, three years.

Committee on Business.—Edwin Walker, Evansville, Ind.; A. R. Craig, Columbia, Pa.; George M. Kober, Washington, D. C.; T. J. Murray, Butte, Mont., and William Davis, St. Paul, Minn.

Committee on Transportation and Place of Session.—M. L. Harris, Chicago; F. H. Wiggin, New York; H. Bert Ellis, Los Angeles, Cal.; B. H. Hartwell, Ayer, Mass.; G. C. Savage, Nashville, Tenn.; H. A. West (deceased), Galveston, Texas, and A. F. Jonas, Omaha.

Committee on Major Walter Reed Monument.—W. W. Keen, Philadelphia, chairman; Joseph D. Bryant, New York City; A. T. Cabot, Boston; Victor C. Vaughan, Ann Arbor, Mich.; T. S. Cullen, Baltimore, and Frank Billings, Chicago.

Committee on Reapportionment.—William S. Foster, Pittsburg, chairman; P. Maxwell Foshay, Chicago; J. N. Hall, Denver, President-elect and Secretary ex officio.

Committee on National Incorporation.—Joseph D. Bryant, chairman, New York; H. L. E. Johnson, Washington, D. C.; Leartus Connor, Detroit; D. S. Fairchild, Des Moines, Iowa, and C. G. Kenyon, San Francisco.

Committee on Reciprocity.—W. L. Rodman, Philadelphia, chairman; William H. Welch, Baltimore; Joseph M. Mathews, Louisville, Ky.; Henry Beates, Jr., Philadelphia; T. J. Murray, Butte, Mont.

Committee on Public Health.—Herman Spaulding, Chicago, chairman; J. N. Hurty, Indianapolis; W. H. Sanders, Mobile, Ala.; H. A. West (deceased), Galveston, Texas; W. C. Gorgas, U. S. A.; V. C. Vaughan, Ann Arbor, Mich.

Committee on Prophylaxis of Venereal Diseases.—Henry D. Holton, Brattleboro, Vt., chairman; George M. Kober, Washington, D. C.; W. H. Sanders, Mobile, Ala.; Ludwig Weiss, New York, secretary; L. D. Bulkley, New York; Louis E. Schmidt, Chicago.

Committee on Credentials and Registration.—George H. Simmons, Chicago, chairman; P. Maxwell Foshay, Chicago; H. O. Walker, Detroit.

ORGANIZATION MEETING AT ATLANTIC CITY.

A Conference of Councilors and State Association Officers to be Held to Discuss the Subject of Organization.

The suggestion for a conference of councilors and secretaries of state associations and others interested during the coming session of the Association at Atlantic City has been received with so much favor in all sections of the country that the meeting has been decided on, and the program is now being arranged. It is proposed that the proceedings shall begin with ten-minute papers from experienced workers in organization work, and these to be followed by a general discussion involving a comparison of views and experiences.

The time and place of the meeting will be announced later in The Journal, as well as in the official program. The meeting will be arranged so as to interfere to the least possible extent with the meetings of the sections and of the House of Delegates. The meeting will be especially for councilors and secretaries of state societies, but all who are interested in the work of organization will be cordially invited to attend the conference and to take part in the proceedings.

THE SECTION PROGRAMS

Of the Fifty-Fifth Annual Session of the American Medical Association at Atlantic City, June 7-10, 1904.

The following is a list of titles of papers to be read before the various sections at the coming session of the American Medical Association. The order in which the titles are printed here will not necessarily be followed in the official program. If there are any corrections to be made, write immediately to the secretary of the section and not to The Journal.

Section on Practice of Medicine.

Chairman, Alexander Lambert, New York City; Secretary, J. L. Miller, 100 State Street, Chicago.

Chairman's Address: The Adaptation of Pure Science to Medicine. Alexander Lambert, New York City.

Pernicious Anemia and Its Relation to Gastric Digestion, Based on Twenty-five Cases. Chas. G. Stockton, Buffalo, N. Y.

Diagnosis and Treatment of Perforation in Typhoid Fever. Morris Manges, New York City.

A Case of Typhoid Fever with an Unusual Complication. William E. Darnall, Atlantic City, N. J.

Mortality and Management of Pneumonia. Edward F. Wells, Chicago.

The Study of a Series of Cases of Pneumonia, with Special Reference to Diagnosis and Complications. Joseph Sailer, Philadelphia.

Appendicitis from the Standpoint of the Physician. S. G. Bonney, Denver.

Has Influenza Been a Causative Factor in the Increase of Appendicitis? Philip Marvel, Atlantic City, N. J.

SYMPOSIUM ON ARTERIOSCLEROSIS.

Pathology of Arteriosclerosis. William H. Welch, Baltimore.

Arteriosclerosis from Acute Infectious Diseases. W. S. Thayer, Baltimore.

Arteriosclerosis of Syphilitic Origin. C. Travis Drennen, Hot Springs, Ark.

Arteriosclerosis of Nephritic Origin. George Dock, Ann Arbor, Mich.

Arteriosclerosis Due to Metallic Poisons. Frank Billings, Chicago.

Arteriosclerosis of Alcoholic Origin. Richard Cabot, Boston.

Arteriosclerosis and Angina Pectoris. William Osler, Baltimore.

Treatment of Arteriosclerosis. James Anders, Philadelphia.

Aneurism of the Innominate Aorta. A. P. Francine, Philadelphia.

A Study of One Hundred and Eighty-six Cases of Mitral and Tricuspid Stenosis. Judson Daland, and E. L. McDaniel, Philadelphia.

Pleural Effusion in Heart Disease. J. Dutton Steele, Philadelphia.

Prolonged Delirium in Pericarditis and Endocarditis, with Report of a Case. E. M. Green, Easton, Pa.

Limitations of Digitalis in Heart Disease. Frank Jones, Memphis, Tenn.

Treatment of Cardiac Disease by Means of the Pneumatic Cabinet. Charles E. Quimby, New York City.

SYMPOSIUM ON GALL-BLADDER DISEASE.

Etiology of Cholecystitis and Cholelithiasis. Walter L. Bierring, Iowa City, Iowa.

Relation of Cholelithiasis to Diseases of the Pancreas. Eugene L. Opie.

The Relation of Disease of the Gall Bladder and Bile Ducts to Disorders of the Stomach and Intestines. Bertram W. Sippy, Chicago.

Diagnosis of Cholecystitis and Cholelithiasis. Joseph A. Blake, New York City.

Treatment of Cholecystitis and Cholelithiasis. Lucius W. Hotchkiss, New York City.

Ergot in General Practice. Alfred T. Livingston, Jamestown, N. Y.

Differential Leucocyte Count as an Aid in the Diagnosis of Fevers. William Krauss, Memphis, Tenn.

Pathogenesis of Uremic and Eclamptic Convulsions. Robert N. Willson, Philadelphia.

Amebic Dysentery; Its Local Lesions and Treatment. James P. Tuttle, New York City.

The Administration of Pancreas Muscle and Pancreas Liver Extracts in Diabetic Glycosuria. A. C. Croftan, Chicago.

Exophthalmic Goiter, Mitral Regurgitation, Bright's Disease and Retinitis Occurring Simultaneously in the Same Individual. Problem of Correlation. Arthur R. Elliott, Chicago.

Suicide; Some Instructive Cases. John L. Davis, Cincinnati.

SYMPOSIUM ON ARTHRITIS DEFORMANS.

Pathology and Etiology of Arthritis Deformans. Thomas McCrae, Baltimore.

Symptomatology of Arthritis Deformans. J. J. Walsh, New York City.

Treatment of Arthritis Deformans. Clarence E. Skinner, New Haven, Conn.

How the General Practitioner Should Treat Gonorrhea. Ferd. C. Valentine, New York City.

Problems for the Tuberculous Convalescent. A. Mansfield Holmes, Denver.

The Family Physician as a Factor in the Solution of the Tuberculosis Problem. S. A. Knopf, New York City.

Section on Obstetrics and Diseases of Women.

Chairman, L. H. Dunning, Indianapolis; Secretary, C. L. Bonifield, 432 West Fourth Street, Cincinnati.

Chairman's Address: Last Year's Progress in Gynecology. Senile Endometritis. L. H. Dunning, Indianapolis.

Further Experience in the Use of the Electrothermic Clamps in the Treatment of Cancer of the Uterus. Charles P. Noble, Philadelphia.

Primary Chorioepithelioma Malignum Outside of the Placental Site. Palmer Findley, Chicago.

The Technic of Wounds Incident to Laparotomy. H. O. Marcy, Boston.

Occipito-Posterior Position. J. M. Duff, Pittsburg.

Diagnosis and Treatment of Pelvic Deformity. George Boyd, Philadelphia.

Heart Disease as an Obstetric Complication. C. S. Bacon, Chicago.

The Obstetrician as a Specialist. J. B. DeLee, Chicago.

Comparative Value of the Different Methods for Accouchement Forcé. Gustav Zinke, Cincinnati.

Is Cesarean Section a Rational Method of Treatment in Placenta Previa? J. F. Moran, Washington, D. C.

A New Method of Determining the Size of the Conjugate Vera by Direct Measurement. W. Frank Haehnlen, Philadelphia.

The Propriety, Indications and Methods for the Termination of Pregnancy. Frank A. Higgins, Boston.

The Influence of Ovarian Implantation on Menstruation in Women. A. Palmer Dudley, New York City.

Repair of Pelvic Floor Lacerations. James H. Burtenshaw, New York City.

The Etiology and Pathology of Cystocele, with a New Operation for Its Relief. J. Riddle Goffe, New York City.

Primary and Secondary Repair of Injuries to the Anterior Vaginal Wall in Labor. B. C. Hirst, Philadelphia.

Injury to the Rectum in the Gynecologic Examination. Howard A. Kelly, Baltimore.

Treatment of Complete Uterine and Vaginal Prolapse. F. H. Wiggin, New York City.

The Advantages and Disadvantages of the Various Surgical Procedures for Relief of Retrodisplacements. E. E. Montgomery, Philadelphia.

Operations for Retroversion of the Uterus, with Special Reference to Effect on Subsequent Pregnancies. Franklin Martin, Chicago.

Two Cases of Retention of Urine Due to Retrodisplacement of the Gravid Uterus. Reuben Peterson, Ann Arbor, Mich.

Malformation of the Placenta. Henry F. Lewis, Chicago.

The Disease and Injuries Following Childbirth and Their Prevention. Edward J. Ill, Newark, N. J.

The Surgical Treatment of Bilocular Uterus and Bifid Vagina. H. W. Longyear, Detroit.

Postoperative Phlebitis of Femoral Veins. A. H. Cordier, Kansas City, Mo.

Clinical Experience with the Appendiculo-Ovarian Ligament. Daniel H. Craig, Boston.

Some Cases of Ectopic Gestation with Atypical Symptoms. Walter B. Dorsett, St. Louis.

A Plea for More Thorough Examinations of Doubtful Specimens of Ectopic Pregnancy. J. Wesley Bovée, Washington, D. C.

A Plea for Conservative Operations on the Ovaries from a Neurotic Standpoint, with a Report of Cases. J. W. Cokenower, Des Moines, Iowa.

Management of the Acute Infective Stages of Abdominal Inflammation. George Erety Shoemaker, Philadelphia.

Multiple Abscesses of the Omentum Following Grave Septic Peritonitis. Report of Two Cases. Hugo O. Pantzer, Indianapolis.

The Use of the Stem Pessary for Scanty and Painful Menstruation. J. H. Carstens, Detroit.

A Series of Mistaken Gynecologic Diagnoses. T. S. Cullen, Baltimore.

Membranous Endometritis. F. F. Lawrence, Columbus, O.

Malignancy of Ovarian Tumors. E. W. Cushing, Boston.

The Invasion of Carcinoma of the Uterine Cervix into the Surrounding Tissues. John A. Sampson, Baltimore.

The Prevention and Treatment of Postpartum Hemorrhage. Edward P. Davis, Philadelphia.

Section on Surgery and Anatomy.

Chairman, Charles A. Powers, Denver; Secretary, E. Wyllys Andrews, 100 State Street, Chicago.

Chairman's Address. Charles A. Powers, Denver.

Rupture of Mesenteric Glands During Typhoid Fever Simulating Intestinal Perforation; Report of a Case, with Operation and Recovery. Robert G. Le Conte, Philadelphia.

SYMPOSIUM ON APPENDICITIS.

Factors in the Mortality of Appendicitis. John B. Deaver, Philadelphia.

Appendicitis in Children. A. J. McCosh, New York City.

Papilloma of Appendix. N. B. Carson, St. Louis.

The Diagnosis of Appendicitis. Should the Appendix Be Removed when the Abdomen Is Opened for Other Conditions? Floyd W. McRae, Atlanta, Ga.

The Surgical Treatment of Gastroptosis. R. C. Coffey, Portland, Ore.

Excision of the Ileum. J. Shelton Horsley, El Paso, Texas.

Experimental Research on the McGraw Elastic Ligature. J. W. Draper Maury, New York City.

The Disadvantages of the Murphy Button. Robert F. Weir, New York City.

Gallstones of the Common Duct. Archibald MacLaren, St. Paul, Minn.

Anatomy of Inguinal Hernia; Andrews' Operation for Radical Cure. D. N. Eisendrath, Chicago.

Four Cases of Strangulated Hernia (Two Femoral, Two Inguinal), Successfully Treated by Primary Resection of Bowel Through Supplementary Abdominal Incision, Followed by Radical Operation at Hernial Site. John Young Brown, St. Louis.

Three Years' Experience with the Autoplastic Suture for Hernia. L. L. McArthur, Chicago.

Old Dislocations; How Shall We Treat Them? De Forest Willard, Philadelphia.

The Treatment of Fracture of the Patella by Lateral Suture. Joseph A. Blake, New York City.

The Treatment of Cold Abscesses and Sinuses in Tuberculous Disease of Bone. V. P. Gibney, New York City.

Impacted Fracture of the Head and Neck of the Femur. Le Moyne Wills, Los Angeles, Cal.

Laminectomy; A Further Contribution. John C. Munro, Boston.

The Surgical Treatment of Certain Cases of Arthritis Deformans. Martin B. Tinker, Clifton Springs, N. Y.

A Successful Removal of Bullet from the Brain. John A. Wyeth, New York City.

Intracranial Neurectomy for Trigeminal Neuralgia; Cases and Comment. Harry M. Sherman, San Francisco.

What Is the Proper Treatment of Suspicious Tumors of the Breast? J. Clark Stewart, Minneapolis.

The Danger of Allowing Warts and Moles to Remain Lest They Become Malignant. W. W. Keen, Philadelphia.

Ten Years' Experience with My Method of Radical Operation for Carcinoma of the Breast. Willy Meyer, New York City.

Kidney Stones; Diagnosis and Treatment. A. D. Bevan, Chicago.

SYMPOSIUM ON THE PROSTATE.

Prostatectomy. James E. Moore, Minneapolis.

Suprapubic Enucleation of the Prostate. H. O. Walker, Detroit.

Prostatectomy, Especially by the Perineal Route. George Goodfellow, San Francisco.

Prostatectomy. Parker Symes, New York City.

Experimental Studies in Gastroenterostomy and Other Reports. H. L. Burrelle, Boston.

Further Report of Four Cases. Charles H. Frazier, Philadelphia.

Excision of the Ulcer-Bearing Area in Gastric Ulcer. W. L. Rodman, Philadelphia.

Fat Embolism of Lung Following Fractures, with Report of Two Cases. F. Gregory Connell, Leadville, Colo.

Matas' Operation for Popliteal Aneurism. J. F. Binnie, Kansas City, Mo.

The Preparatory and Postoperative Treatment of Surgical Cases. L. Sexton, New Orleans.

Surgery of the Trifacial Nerve and Its Ganglia. J. B. Murphy, Chicago.

Beside the above the following will read papers, but their titles have not yet been received: Maurice H. Richardson, Boston: George Ben Johnston, Richmond, Va., and J. H. Burry, Chicago.

Section on Hygiene and Sanitary Science.

Chairman, G. T. Swarts, Providence, R. I. Secretary, J. S. Fulton, 1809 St. Paul Street, Baltimore.

The officers of this section have not favored us with their program.

Section on Ophthalmology.

Chairman, Robert L. Randolph, Baltimore; Secretary, Albert E. Bulson, Jr., Fort Wayne, Ind.

Chairman's Address: Thoughts Suggested by a Study of the Eye Injuries of Independence Day. Robert L. Randolph, Baltimore.

The Treatment of Purulent Ophthalmia. Myles Standish, Boston.

Postoperative Infection of the Eye. J. A. White, Richmond.

Tumors of the Orbit. H. V. Würdemann, Milwaukee; Brown Pusey, Chicago.

A Case of Pulsating Exophthalmus; Successive Ligation of Both Common Carotids; Death. Howard F. Hansell, Philadelphia.

Intermittent Exophthalmus, with the Report of a Case. William C. Posey, Philadelphia.

Diaphoresis and Diaphoretics in Ophthalmic Therapeutics. Hiram Woods, Baltimore, and T. A. Woodruff, Chicago.

The Importance of General Therapeutics in the Management of Ocular Affections. A. Maitland Ramsay, Glasgow, Scotland. (By special invitation.)

(*a*) A Case of Syphilitic Iridochoroiditis of One Eye, with a Marked Perforative Syphiloma in the Upper Ciliary Region; Recovery. (*b*) A Case of Congenital Sensory Alexia, Combined with Paresis of the Superior Rectus of the Left Eye and of the Inferior Rectus of the Right. Herman Knapp, New York City.

Is Bilateral Operation for Cataract Ever Justifiable, and If Not, How Soon After the Operation on the First Eye Is It Safe to Extract the Second Cataract? A. W. Calhoun, Atlanta, Ga.

Reclination of the Lens; Under Certain Conditions a Justifiable Operation. F. T. Rogers, Providence, R. I.

Septic Thrombosis of the Cavernous Sinus, with a Report of Three Cases. E. C. Ellett, Memphis, Tenn.

The Conservative Treatment of Affections of the Lachrymal Apparatus. S. D. Risley, Philadelphia.

The Mathematical Point of Reversal in Skiascopy. Swan M. Burnett, Washington.

Some Injuries of the Eye in Their Medicolegal Aspect. John J. Kyle, Indianapolis.

Blindness and Oculomotor Palsies from Injuries Apparently Not Involving the Optic or Oculomotor Nerves. Alvin A. Hubbell, Buffalo.

The Ocular Symptoms of Lesions of the Optic Chiasm. G. E. de Schweinitz and John T. Carpenter, Philadelphia.

Saccharine Saline Injections in Ophthalmic Practice. L. Webster Fox, Philadelphia.

Operations on the Eyeball in the Presence of an Infected Conjuctival Sac. Charles S. Bull, New York City.

Temporal Cleft of the Nervehead and the Other Fundus Anomalies Often Present with It. Charles H. Beard, Chicago.

Obstructions in the Retinal Arteries. Allen Greenwood, Boston.

Some Problems of Presbyopia. Geo. M. Gould, Philadelphia.

Development of the Faculty of Binocular Vision. Edward Jackson, Denver.

Clinical and Histologic Observations on Sympathetic Ophthalmia. Clarence Veasey, Philadelphia.

Operative Procedures on the Exciting Eye and the Sympathizing Eye in Cases of Sympathetic Ophthalmia. John E. Weeks, New York City.

Sympathetic Ophthalmitis. Samuel Theobald, Baltimore.

The Environment and Visual Requirements of Railway Engineers and Firemen; Personal Observations from an Engine Cab. Nelson M. Black, Milwaukee.

The Molar Teeth and the Patellar Reflex in Interstitial Keratitis Due to Inherited Syphilis. George F. Suker, Chicago.

New Views Regarding the Horopter. George T. Stevens, New York City.

Blastomycosis of the Eyelid, with Report of Cases. William H. Wilder, Chicago.

Brief Report of Additional Cases of Sympathectomy for *Glaucoma.* W. B. Marple, New York City.

An Exact and Secure Tucking Operation for Advancing an Ocular Muscle, Illustrated by Demonstration on a Manikin. F. C. Todd, Minneapolis.

Injuries of the Iris, with Report of a Case of Iridodialysis in Which There Was a Complete Reattachment of the Iris. Ellett O. Sisson, Keokuk, Iowa.

Methyl Alcohol Intoxication. Frank Buller, Montreal, Canada. (By special invitation.)

The Axis of Astigmatism. J. H. Claiborne, Jr., New York City.

The Usefulness of the Ophthalmometer. F. C. Heath, Indianapolis.

The Relation of Corneal Curvatures to the Refraction of the Eye. G. Melville Black, Denver.

Subjective Refraction. John A. Tenney, Boston.

Some New Test Types for the Reading Distance. Charles H. Williams, Boston.

Double Radial Rupture of the Iris Causing a Complete and Well-Formed Iridectomy. S. C. Ayers, Cincinnati.

Section on Diseases of Children.

Chairman, Charles G. Kerley, New York City; Secretary, C. F. Wahrer, Ft. Madison, Iowa.

Chairman's Address: The Demands of the Child by Virtue of Right. Charles Gilmore Kerley, New York City.

Erythema Nodosum in Children. Isaac A. Abt, Chicago.

The Early Diagnosis and Treatment of Whooping Cough. Philip F. Barbour, Louisville, Ky.

Whooping Cough; Its Treatment by Means of the Elastic Belt. Theron W. Kilmer, New York City.

Some Clinical Observations on Malnutrition and Its Relationship to Infantile Tuberculosis. Louis Fischer, New York City.

Amaurotic Family Idiocy: A Report of Two Cases in Sisters. A. C. Cotton, Chicago.

How to Produce the Best Milk for Infant Feeding. Edward F. Brush, Mt. Vernon, N. Y.

The Initial Contamination of Dairy Milk. Richard Cole Newton, Montclair, N. J.

Phlyctenular Ophthalmia. Albert R. Baker, Cleveland, Ohio.

The Effect of Uncorrected Refractive Errors and Muscular Unbalance on the Nervous System of Children. J. H. Claiborne, New York City.

Congenital Occlusion of the Lachrymal Canal and the Acute Inflammation of the Conjunctiva Occurring in Children. John E. Weeks, New York City.

Precautions Used by the New York Health Department to

Prevent the Spread of Contagious Diseases in the City Schools. Thomas Darlington, New York City.

Perinephritis. Wisner R. Townsend, New York City.

Enuresis. Maurice Ostheimer and I. Valentine Levi, Philadelphia.

SYMPOSIUM ON DIARRHEA.

The Bacteriology of Summer Diarrhea. William H. Park, New York City.

A Summer's Experience with Infantile Dysentery. J. H. Mason Knox, Jr., Baltimore.

A Study of 28 Cases of Diarrhea in Children. John C. Cook, Chicago.

The Management of Summer Diarrhea. Thomas S. Southworth, New York City.

Treatment of Acute Diarrhea in Infants, and Its Dietetic Management. Henry L. Coit, Newark, N. J.

Dilatation of the Colon in Children. William Osler, Baltimore.

Hematuria as the Earliest or Only Symptom of Infantile Scurvy. John Lovett Morse, Boston.

Some Points on General Anesthesia in Children. Thomas L. Bennett, New York City.

Diseases of Children Occasioned by Affections of the Nose; the Necessity for Recognition and Treatment. Louis J. Lautenbach, Philadelphia.

The Importance of an Early Aural Examination in Acute Inflammatory Diseases. James F. McKernon, New York City.

The Prognosis of Pneumonia in Infants and Young Children, in Private Practice. L. Emmett Holt, New York City.

Diagnosis of Enlarged Bronchial Lymph Nodes. Alfred Friedlander, Cincinnati.

The Management of Hernia in Infancy and Childhood, with Results of Operative Treatment. William B. Coley, New York City.

Intestinal Obstruction in Children. John F. Erdman, New York City.

Nervous Diseases in Children. Barnard Sachs, New York City.

Chorea. W. C. Hollopeter, Philadelphia.

A Case of Landry's Paralysis in a Child. Henry Enos Tuley, Louisville, Ky.

Lymphoid Affections in the Upper Air Tract of Children. Their Diagnosis and Treatment. Walter F. Chappell, New York City.

Adenoids in Children; Their Treatment, Medical and Surgical. Charles M. Robertson, Chicago.

Chronic Constipation in the Infant. J. Ross Snyder, Birmingham, Ala.

Some Physical Signs in Infants and Children Not Generally Recognized. Samuel McClintock Hamill and Theodore Le Boutillier, Philadelphia.

The Care of Infants in Public Institutions. H. M. McClanahan, Omaha.

A Case Conjoining Myxedema and Diabetes Mellitus. August Adrian Strasser, Arlington, N. J.

Section on Stomatology.

Chairman, G. F. Eames, Boston; Secretary, Eugene S. Talbot, 103 State Street, Chicago.

SYMPOSIUM ON DENTAL EDUCATION.

Chairman's Address: The Value of Symmetry in the Development of Professional Character and Education. George F. Eames, Boston.

The Evolution of Standards in Dental Education. Charles Chittenden, Madison, Wis.

Phases of Dental Education. A. E. Baldwin, Chicago.

Dental Education, a Retrogressive and Prospective View. John S. Marshall, San Francisco.

SYMPOSIUM ON THE DENTAL PULP.

Neoplasm of the Tooth Pulp. Vida A. Latham, Rogers Park, Ill.

Vital Principles in Adult Pulp. R. R. Andrews, Cambridge, Mass.

Degeneration of the Tooth Pulp. Eugene S. Talbot, Chicago.

The Pulp. Jos. Arkovy, Budapest, Hungary.

A System for Surgical Treatment of Hare-lip, Cleft Palate and Facial Deformities and Postoperative Speech Education. George V. I. Brown, Milwaukee, Wis.

Multiple Fracture of Lower Jaw Complicated by Simultaneous Fracture of the Upper Jaw. Thomas L. Gilmer, Chicago.

Impacted Teeth; Their Diagnosis, Liberation and Extraction. Matthew H. Cryer, Philadelphia.

Ankylosis of the Jaw. G. Lenox Curtis, New York City.

Necrosis of the Bones of the Face. Stewart L. McCurdy, Pittsburg, Pa.

Treatment of Pathologic Irregularities of the Teeth. M. H. Fletcher, Cincinnati.

Report of a Case of Vincent's Angina and Stomatitis, with Photographs. George C. Crandall, St. Louis.

Oral Infection and Sterilization. M. L. Rhein, New York City.

Changes in the Salivary Secretions as Affected by Systemic Disease. Heinrich Stern and William Lederer, New York City.

Prophylaxis in Relation to Tooth Environment and to the Prophylactic Value of Materials Employed. Chas. F. Allan, Newburgh, N. Y.

The Physician's Duty to the Child from a Dental Standpoint. Alice Steeves, Boston.

Ethics. Adelbert H. Peck, Chicago.

Section on Nervous and Mental Diseases.

Chairman, F. Savary Pearce, Philadelphia; Secretary, David I. Wolfstein, 22 West Seventh Street, Cincinnati.

Chairman's Address: Nervous and Mental Diseases, Past, Present and Future. F. Savary Pearce, Philadelphia.

Report of Committee on the Collection of Information Regarding Public School Methods and Their Effects on the Mental and Physical Health of School Children. W. J. Herdman, Ann Arbor, Mich.

SYMPOSIUM ON CHOREIFORM AND OTHER SPASMODIC MOVEMENTS.

Symptomatology, Pathology and Treatment of Choreiform Movements. William G. Spiller, Philadelphia.

Convulsive Tic. Hugh T. Patrick, Chicago.

Hysterical Movements. Howell T. Pershing, Denver.

Dementia Precox. F. X. Dercum, Philadelphia.

Early Diagnosis of Paresis. Lambert Ott, Philadelphia.

The Treatment of Aphasia by Training; With Some Remarks on the Re-education of the Adult Brain. Charles K. Mills, Philadelphia.

The Present Campaign Against Insanity. W. J. Herdman, Ann Arbor, Mich.

The Dividing Line Between Neuroses and Psychoses and the Position of Neurasthenia. Richard Dewey, Wauwatosa, Wis.

The Nature of Traumatic Sclerosis. Arthur C. Brush, Brooklyn.

A Tumor of the Frontal Lobe. W. W. Keen, Philadelphia, and Philip King Brown, San Francisco.

A Case of Brain Tumor with Peculiar Clinical and Medicolegal Features. A. P. Ohlmacher, Gallipolis, Ohio.

A Brain Tumor with Progressive Blindness as Its Most Prominent Feature; with Microscopic Report. W. C. Kendig and D. I. Wolfstein, Cincinnati.

Some Unusual Forms of Multiple Neuritis. Wharton Sinkler, Philadelphia.

An Experimental and Clinical Study of the Pressure Palsies and Allied Conditions in the Peripheral Nerves. D. J. McCarthy, Philadelphia.

A Clinico-Pathologic Study of Hemiplegia. T. H. Weisenburg, Philadelphia.

Facial Paralysis, Bilateral with Marked Sensory and Reflex Defects, Possibly Due to La Grippe. Frank W. Langdon, Cincinnati.

Tuberculosis of the Nervous System. D. J. McCarthy, Philadelphia.

A Case of Spastic Diplegia Following Whooping Cough, with Autopsy. John H. W. Rhein, Philadelphia.

Two Cases of Congenital Deformity, Possibly Due to Intrauterine Disease of the Spinal Cord. Charles W. Burr, Philadelphia.

A Case of Locomotor Ataxia, Complicated by a Tremor Resembling Paralysis Agitans, with Autopsy. John H. W. Rhein, Philadelphia.

A Promising Case of *Locomotor Ataxia*. *Guy W. Hinsdale*, Hot Springs, Va.

The Surgical Treatment of Poliomyelitis. W. G. Spiller and *Charles Frazier, Philadelphia*.

A New Dynamometer. H. E. Wetherill, Philadelphia.

The Quarter-Decade and Semi-Decade Treatment and Curability of Epilepsy. Charles H. Hughes, St. Louis.

Localized Convulsive Seizures; with Report of a Case. Samuel Bell, Detroit.

Have Drug Habits a Pathologic Basis? Albert E. Sterne, Indianapolis.

Minor or Borderline Psychoses of Alcoholism. Frank P. Norbury, Jacksonville, Ill.

Should Inebriates Be Punished by Death for Crime? T. D. Crothers, Hartford, Conn.

Hysterical Delirium, with Report of Four Cases. Theodore Diller, Pittsburg, Pa.

Psychic Influence. Brooks F. Beebe, Cincinnati.

Report of the Committee on Public School Methods and Psychoses.

Section on Cutaneous Medicine and Surgery.

Chairman, Henry G. Anthony; Secretary, R. R. Campbell, 204 Dearborn Street, Chicago.

Chairman's Address: *Developmental Defects in the Skin.* H. G. Anthony, Chicago.

Iodin Medication. W. L. Baum, Chicago.

Cover-glass Cultures and Their Possibilities in Studying the Epidermic Fungi. J. Frank Wallis, Philadelphia.

Acne Keratosa. William S. Gottheil, New York City.

A Second Case of Larva Migrans. *Henry W. Stelwagon*, Philadelphia.

Report of a Case of Paget's Disease of the Gluteal Region. John A. Fordyce, New York City.

The Consideration of Late Hereditary Syphilis. R. R. Campbell, Chicago.

The Treatment of Lupus Erythematosus by Repeated Refrigeration with Ethyl Chlorid. M. B. Hartzell, Philadelphia.

Affections of the Mucous Membrane of the Mouth and of the Lips in Lichen Planus. David Lieberthal, Chicago.

Report of a Remarkable Case of Xanthoma. John V. Shoemaker, Philadelphia.

Indurated Erythema and Its Relation to Tuberculosis. Grover W. Wende, Buffalo, N. Y.

Linear Nevi. M. L. Heidingsfeld, Cincinnati.

Report on Several Interesting Dermatologic Cases. Louis E. Schmidt, Chicago.

The Diagnosis of Scarlatina and Scarlatinoid Affections. Jay F. Schamberg, Philadelphia.

A Case of Eczema of the Hands Controlled with the X-Ray. D. W. Montgomery, San Francisco.

Radium and Its Therapeutic Possibilities. W. A. Pusey, Chicago.

Falling of the Hair. R. A. McDonnell, New Haven, Conn.

X-Ray Therapy in Skin Diseases. G. E. Pfahler, Philadelphia.

The Use and Abuse of Ointments. L. D. Bulkley, New York City.

Comparison of Phototherapy, Radiotherapy and High Frequency Therapy in Skin Diseases. C. W. Allen, New York City.

A False or Cicatricial Keloid. A. Ravogli, Cincinnati.

Prurigo (Hebra) as Observed in the United States. William T. Corlett, Cleveland.

Treatment of Hyperidrosis, Especially Hyperidrosis Pedum, with Permanganate of Potash. Ludwig Weiss, New York City.

A Case of Dermatitis Herpetiformis Treated with the X-Rays. William T. Corlett, Cleveland.

Exhibition of Photographs.

Lantern slide demonstration of interesting cases, etc., will be given on the afternoon of the first day of the session.

Section on Laryngology and Otology.

Chairman, J. F. Barnhill, Indianapolis; Secretary, Otto T. Freer, 288 Huron Street, Chicago.

Chairman's Address: The Present Status of Otology; How May We Improve It? John F. Barnhill.

Reflex Apnea and Cardiac Inhibition in Operations on the Respiratory Tract. William H. Good and W. G. B. Harland, Philadelphia.

The Ultimate Results of Cauterization on the Tissues in the Nose. J. L. Goodale, Boston.

Tonsillectomy by Forceps and Snare, Thorough, Painless and Safe. E. Fletcher Ingals, Chicago.

The Significance of Tubercular Deposits in the Tonsils George B. Wood, Philadelphia.

Throat Complications of Typhoid Fever. Francis J. Quinlan, New York City.

Lithemic Nasopharyngitis Due to Systemic Disturbances. J. A. Stucky, Lexington, Ky.

The Relation of the Chemistry of the Saliva (Sialo-Semeiology) and Nasal Secretions to Diseases of the Mucous Membrane of the Mouth and Upper Respiratory Tract. D. Braden Kyle, Philadelphia.

Hemorrhage of the Larynx. John Edwin Rhodes, Chicago.

A Review of One Hundred Operations for the Correction of Deviation of the Nasal Septum; Remarks on Septal Operations. Joseph S. Gibb, Philadelphia.

Spontaneous Tonsillar Hemorrhage. Lewis S. Somers, Philadelphia.

Hemorrhage Complicating Peritonsillitis. Robt. Levy, Denver.

Reversional Vestiges in the Human Pharynx as Sources of Irritation. Norval Pierce, Chicago.

A Report of Some Unusual Intubation Cases. Burt Russell Shurly, Detroit.

The Radical Operation for Chronic Suppurative Frontal Sinusitis. W. Freudenthal, New York City.

The Present Position of Operative Interference in Chronic Suppuration of the Frontal Sinus. (With demonstration.) A. Logan Turner, Edinburgh, Scotland.

The Present Status of the Treatment for Deafness Due to Chronic Catarrhal Otitis Media. Philip D. Kerrison, New York City.

The Hot Water Douche in Treatment of Chronic Catarrhal Deafness. G. P. Head, Chicago.

The Treatment of Otitic Septicemia. B. Alexander Randall, Philadelphia.

Plastic Operations for the Closure of Post-Aural Openings Following Radical and Mastoid Operations. E. B. Dench, New York City.

The Palliative Treatment of Acute Mastoiditis, and *Its Limitations*. *Philip Hammond*, Boston.

Acute Osteomyelitis as Affecting the Temporal Bone. Charles W. Richardson, Washington, D. C.

Some Considerations Arising from the Difficulty of Choice of a Time for Mastoid Operation. Prospective Results. D. A. Kuyk, Richmond, Va.

Bezold's Mastoiditis, with Three Cases. Seymour Oppenheimer, New York City.

Tuberculosis of Both Middle Ears in an Infant. Dunbar Roy, Atlanta, Ga.

Operative Treatment of the Faucial Tonsils, with View to Prevention of Cervical Adenitis and General Infection. Robert C. Myles, New York City.

Two Cases of Objective Aural Tinnitus Due *to the Action* of the Tubopalatal Muscles. Walter S. Wells, Washington, D. C.

Section on Materia Medica, Pharmacy and Therapeutics.

Chairman, O. T. Osborne, New Haven, Conn.; Secretary, C. S. N. Hallberg, 358 Dearborn Street, Chicago.

Chairman's Address: The Scourge of Nostrums and Irregular Practitioners. Oliver T. Osborne, New Haven, Conn.

Report of Committee on Proprietary Medicines. Henry H. Moody, Mobile, Ala.; William J. Robinson, New York City, and Carl S. N. Hallberg, Chicago.

Federal Supervision of Drugs. Harvey W. Wiley, Washington, D. C.

Eighth Decennial Revision of the Pharmacopeia of the U. S. A. Joseph P. Remington, Philadelphia.

The Relation of the Physician to Proprietary Remedies. How May Substitution Be Avoided and the Desired Preparation Obtained Without Unduly Advertising the Manufacturer? William J. Robinson, New York City.

The Therapeutic Value of Parotid, Ovarian and Mammary Substances. John B. Shober, Philadelphia.

The Relation of the Internal Secretions to Epilepsy, Puerperal Eclampsia and Kindred Convulsive Disorders. Charles E. D. Sajous, Philadelphia.

Vasodilation and Its Production by Drugs. Arthur R. Elliott, Chicago.

The Control of Internal Hemorrhage by Drugs. Thomas Coley, Philadelphia.

SYMPOSIUM ON THE ARTIFICIAL AND PATHOLOGIC PERVERSIONS OF METABOLISM AND THEIR RELATION TO GOUT.

Drugs Irritant to the Kidneys and Hence to Be Avoided in Impaired Kidney Function. Torald Sollmann, Cleveland.

The Action of Drugs on the Liver and the Drugs to Be Avoided in Liver Disturbances. Alfred C. Croftan, Chicago.

Some Aspects of the Newer Physiology of the Gastrointestinal Canal. Lafayette B. Mendel, New Haven, Conn.

The Etiology and Pathology of Gout. Thomas B. Futcher, Baltimore.

The Prevention of Gout and the Management of Its Manifestations. Woods Hutchinson, Portland, Ore.

The Systemic Value of Radical Changes in Diet. Russell H. Chittenden, New Haven, Conn.

Hydrastis; Some of Its Therapeutic Uses. W. Blair Stewart, Atlantic City, N. J.

The Therapy of Arsenic. Harold N. Moyer, Chicago.

Apocynum Cannabinum. Horatio C. Wood, Jr., Philadelphia.

The Rational Application and Value of Specific Treatment for Tuberculosis. Edward R. Baldwin, Saranac Lake, N. Y.

The Origin and Treatment of Edema. Egbert Le Fevre, New York City.

Etiology and Treatment of Recurrent Headache. Gustavus Eliot, New Haven, Conn.

The Present Status of Streptococcus and Tetanus Antitoxin Injections. Victor C. Vaughan, Ann Arbor, Mich.

SYMPOSIUM ON PNEUMONIA.

Its Increase and the Measures for Its Prevention. Nathan S. Davis, Jr., Chicago.

The Value of Internal Medication and of External Local Applications. George Dock, Ann Arbor, Mich.

The Prevention and Management of Cardiac Failure. Solomon Solis-Cohen, Philadelphia.

The Value of Serum Treatment. John M. Anders, Philadelphia.

The Physical and Psychic Effects of Hydrotherapy. George F. Butler, Alma, Mich.

The Therapeutic Value of Massage in Acute Disease. Jay W. Seaver, New Haven, Conn.

The Action of Drugs on the Skin. Ralph A. McDonnell, New Haven.

The Year's Progress in Actinotherapy. William S. Gottheil, New York.

Pharmacodynamics from the Viewpoint of Osmology and an Outline of a System of Osmotherapy. Heinrich Stern, New York.

Section on Pathology and Physiology.

Chairman, Jos. McFarland, Philadelphia; Secretary, Henry A. Christian, Boston.

Chairman's Address: The Relation of the Section on Pathology and Physiology to the Other Sections of the Association. Jos. McFarland, Philadelphia.

Antistreptococcus Serum. D. H. Bergey, Philadelphia.

Bone Cysts; the Benign and Adamantine Dentigerous Cysts of the Jaw and Benign Cysts of the Long Pipe Bones. Joseph C. Bloodgood, Baltimore.

Early Acute Pancreatitis Without Hemorrhage; Report of a Case. H. H. Germain and Henry A. Christian, Boston.

The Pelvic Ureteral Sheath and Its Relation to Diseased Conditions in the Pelvis. John A. Sampson, Baltimore.

Chylous Ascites. L. Napoleon Boston, Philadelphia.

The Nature and Significance of Leucocytosis. A. M. Holmes, Denver.

The Pathologic Histology of Adipose Tissue. Henry A. Christian, Boston.

Vaccine: (*a*) The Development of Vaccine on Various Animals. (*b*) The Action of Various Drugs on Vaccine. (*c*) Attempts to Grow the Vaccine Organism. (*d*) Attempts to Identify the Vaccine Organism. C. T. McClintock, Detroit.

The Involvement of the Brain in Necrosis of the Temporal Bone. L. W. Dean, Iowa City, Iowa.

The Passage of the Different Foodstuffs from the Stomach. W. B. Cannon, Boston.

Further Observations on Leucocytotoxins. Henry A. Christian and Thomas F. Leen, Boston.

Extensive Thrombosis of the Sinuses of the Cerebral Dura, with Report of Two Cases. William G. Spiller, Philadelphia.

Anatomy of Bartholin's Glands; Cysts of Bartholin's Glands. T. S. Cullen, Baltimore.

Factors Causing the Migration of the Lymphocytes; a Contribution to the Physical Chemistry of the Leucocytes. Wilhelm Becker, Milwaukee.

A Hitherto Undescribed Intestinal Parasite of Man. Allen J. Smith, Philadelphia.

Regenerative Changes in Cirrhosis of the Liver. W. G. MacCallum, Baltimore.

Will the Long Continued Administration of Digitalis Induce Cardiac Hypertrophy? Frank B. Wynn, Indianapolis.

Secondary Manifestations of Hypernephroma. Walter L. Bierring and Henry Albert, Iowa City, Iowa.

Further Studies on Bacterial Intracellular Toxins. Victor C. Vaughan, Ann Arbor, Mich.

The Physiologic Significance of Chest Contours. Winfield S. Hall and F. F. Malone, Chicago.

The Influence of Posture on Blood Pressure and on the Pulse Rate. O. Z. Stevens and Winfield S. Hall, Chicago.

A Problem in Nutrition. L. Breisacher, Detroit.

The Physiology of the Middle Ear. J. Hollinger, Chicago.

New Experiments in Physiologic Optics. Winfield S. Hall, Chicago.

Observations on Motor and Sensory Localization of the Human Cortex. Harvey Cushing, Baltimore.

A Case of Sarcoma Arising in the Region of the Pancreas, with Special Reference to the Metastases. Granville Y. Rusk, New York City.

The Pathologic Physiology of Diabetes. Graham Lusk, New York City.

The Effects of Bloodletting on Metabolism. William J. Gies, New York City.

The Character of the Chromatophores. Leo Loeb, Philadelphia.

Uncinariasis in the South, with Special Reference to Mode of Infection. Claude A. Smith, Atlanta, Ga.

Clinical and Experimental Studies on Blood-Plates. Joseph H. Pratt, Boston.

A Bacteriologic and Clinical Investigation of a Curative Serum for Typhoid Fever. John S. Fulton, Baltimore.

Malignant Endotracheal Tumor Simulating Aneurism. Judson Daland and Jos. McFarland, Philadelphia.

Borated Food as a Cause of Kidney Lesions. Charles Harrington, Boston.

PHILADELPHIA CLINICS AND DEMONSTRATIONS.

COMPLIMENTARY TO THE MEMBERS OF THE AMERICAN MEDICAL ASSOCIATION FOR THE WEEK PRECEDING AND THE WEEK FOLLOWING THE ATLANTIC CITY SESSION.

The profession of Philadelphia has arranged special clinics, lectures, demonstrations, etc., for members of the American Medical Association attending the Atlantic City Session. These are not to conflict with the Association work but are to precede and to follow. The schedule is given below. Dr. De Forest Willard, 1818 Chestnut Street, chairman of the committee on clinics, writes that the physicians of Philadelphia will be glad to do everything that lies in their power to make the visit of their fellow members of the Association interesting and satisfactory.

Buffet lunch will be served in the dining hall of the University Hospital each day to all members.

Dr. John B. Roberts will entertain the members of the American Medical Association and the members of the American Academy of Medicine at luncheon, at 313 S. 17th Street, Friday, June 3, at 2 p. m.

University of Pennsylvania Clinics and Demonstrations at the University Hospital.

Thirty-sixth and Spruce Streets.

FRIDAY, JUNE 3.

Edsall.—Demonstrations of the Methods Employed in the Analysis of the Gastric Contents. 11 a. m., Medical Amphitheater.
Steele.—Diagnosis and Treatment of Diseases of the Stomach. 12 m., Medical Amphitheater.
Fussell.—Exhibition of Cases of Heart Disease with Special Reference to Myocarditis. 1 p. m., Medical Amphitheater.
Luncheon.—University Hospital. 2 p. m.
Randall.—Stereopticon Demonstration of the Clinical Anatomy of the Tympanic Cavity. 3 p. m., Medical Amphitheater.

SATURDAY, JUNE 4.

Smith, A. J.—Demonstrations of Autopsy Technic and of Pathologic Specimens. 10 a. m. to 12 m., Medical Hall.
Tyson.—Medical Clinic. 12 m., Medical Amphitheater.
Anspach.—Demonstrations of a Series of Natural Color Preparations Illustrating the Value of Routine Histologic Examination of Gynecologic Specimens. 1 p. m., Gynecologic Amphitheater, University Hospital.
Luncheon.—University Hospital. 2 p. m.
Clark.—Gynecologic Clinic. 3 p. m., Gynecologic Amphitheater.

MONDAY, JUNE 6.

Muller.—Pathology of the Pancreas. 10 a. m., University Hospital.
Edsall.—Diagnosis and Treatment of Diseases of Liver. 11 a. m., Medical Amphitheater.
Young.—The Surgery of Paralyses. 12 m., Orthopedic Amphitheater.
Mills.—Some of the Newer Aspects and Methods of Cerebral Localization. 1 p. m., Medical Amphitheater.
Luncheon.—University Hospital. 2 p. m.
Spiller.—Tumors of the Brain. 3 p. m., Surgical Amphitheater.
Frazier.—Surgery of Brain Tumors. 4 p. m., Surgical Amphitheater.

NOTE: Subject of lectures by Drs. Mills, Spiller and Frazier will be Brain Tumors. Each lecturer will discuss or demonstrate a different phase of the subject, so that there will be no repetition.

FRIDAY, JUNE 10.

Opening Exercises of the New Medical Laboratories. 4 p. m.

SATURDAY, JUNE 11.

Allis.—Congenital Dislocation of the Hip. A demonstration on the cadaver, in which both hips will be simultaneously dislocated by a force simulating routine contractions, with brief remarks on the etiology, diagnosis and treatment. 9 to 11 a. m.
Willard.—Treatment of Congenital Dislocation of the Hip. 11 a. m., Orthopedic Amphitheater.

Clinics will close in time for those who so desire to take the 1:20 train for Washington to witness the unveiling of the Rush monument.

MONDAY, JUNE 13.

Evans.—Serum Diagnosis of Typhoid and Other Infectious Fevers. The Precipitins and Their Medicolegal Value. 10 a. m., University Hospital.
Sailer.—Application of the Roentgen Ray in the Diagnosis of Thoracic Diseases. 11 a. m., University Hospital.
Stengel.—Practical Demonstrations of Methods Used in the Diagnosis and Treatment of Valvular Heart Disease and Arteriosclerosis. 12 m., Clinical Amphitheater.
Hirst.—Plastic and Abdominal Surgery for Complications and Consequences of Childbirth. 1 p. m., Maternity Amphitheater.
Luncheon.—University Hospital. 2 p. m.
De Schweinitz.—Ophthalmologic Clinic, with Special References to Ocular Traumatisms. 3 p. m., Gynecologic Amphitheater.
Shumway.—Lantern Demonstration on the Embryology of the Eye. 4 p. m., University Hospital.

TUESDAY, JUNE 14.

Stanton.—Demonstration and Application of the Methods of Determining Blood Pressure. 10 a. m., Medical Amphitheater.
Griffith.—Pediatric Clinic. 11 a. m., Medical Amphitheater.
Musser.—Medical Clinic. 12 m., Surgical Amphitheater.
Martin.—Surgical Clinic. 1 p. m., Surgical Amphitheater.
Luncheon.—University Hospital. 2 p. m.
Piersol.—Demonstrations of Monstrosities. 3 p. m., Medical Hall.
Pancoast.—The Relative Results Obtained with the Roentgen Ray and Radium in the Treatment of Carcinoma and Other Lesions. 4 p. m., Surgical Amphitheater.

Clinics and Demonstrations at the Jefferson Medical College and Hospital.

Tenth and Walnut Streets.

TUESDAY, MAY 31.

Brick, J. Coles.—Rectal Clinic. 9:30 to 10:30 a. m., Hospital Amphitheater.
Roe, W. J.—Oral Clinic. 11 a. m. to 12:30 m., Hospital Amphitheater.
Stewart, Francis T., Surgical Clinic. 2:30 to 4 p. m., Hospital Amphitheater.

WEDNESDAY, JUNE 1.

Jones, W. S.—Laryngologic Clinic. 10 to 11 a. m., Hospital Amphitheater.
Bland, P. Brooke.—Pathology of Certain Pelvic Organs with Lantern Demonstrations. 11 a. m. to 1 p. m., College Building.
Montgomery, E. E.—Gynecologic Clinic. 1 to 3 p. m., Hospital Amphitheater.
Coplin, W. M. L.—Insects and Lower Animals as Carriers of Contagion. 4 p. m., College Lecture Room.

THURSDAY, JUNE 2.

Pathologic and Histologic Laboratories. Demonstrations by Drs. Ellis and Radasch. 9:30 to 11 a. m., College Building.
DaCosta, Jr., J. C.—Recent Advances in Diagnosis by Examination of the Blood. 11 a. m. to 12 m., Hospital Amphitheater.
Cohen, S. S.—Clinical Lecture Illustrating Recent Advances in Medical Diagnosis. 12 to 1 p. m., Hospital Amphitheater.
Horwitz, Orville.—Genito-Urinary Clinic. 2 to 3:30 p. m., Hospital Amphitheater.
Davis, Edward P.—Modern Obstetric Surgery. 4 p. m., Maternity Building, 224 S. Seventh St.

FRIDAY, JUNE 3.

Bacteriologic Laboratory. Demonstrations by Dr. Rosenberger. 9 to 10:30 a. m., College Building.
Kyle, D. Braden.—Laryngologic Clinic. 10:30 to 11:30 a. m., Hospital Amphitheater.
Brubaker, A. P.—Demonstrations in Physiologic Laboratory. 11:30 a. m. to 1 p. m., College Building.
Spencer, Geo. W.—Surgical Clinic. 1 to 2:30 p. m., Hospital Amphitheater.
Graham, E. E.—Typhoid Fever in Infancy and Early Childhood. 3 to 4 p. m., College Building.
Hansell, Howard F.—Ophthalmologic Clinic. 4 p. m., Hospital Amphitheater.

SATURDAY, JUNE 4.

Brubaker, A. P.—Demonstrations in Physiologic Laboratory. 9 to 10 a. m., College Building.
DaCosta, J. C.—Gynecologic Clinic. 10 a. m. to 12 m., Hospital Amphitheater.
Hearn, W. Joseph.—Surgical Clinic. 1:30 to 3:30 p. m., Hospital Amphitheater.
Davis, Edward P.—The Preventive Treatment of Eclampsia. 4 p. m., Maternity Building, 224 S. Seventh St.

MONDAY, JUNE 6.

Wilson, H. A., and Professor Hoffa of Berlin.—Orthopedic Clinic. 9:30 a. m. to 12 m., Hospital Amphitheater.
Keen, W. W.—Surgical Clinic. 1 to 3:30 p. m., Hospital Amphitheater.
Fisher, John M.—Gynecologic Clinic. 4 p. m., Hospital Amphitheater.
Hansell, Howard F.—Ophthalmologic Clinic. 4 p. m., Philadelphia Hospital, Thirty-fourth and Spruce Sts.

SATURDAY, JUNE 11.

Fisher, John M., 9 to 10 a. m.; Montgomery, E. E., 10 to 11 a. m.; DaCosta, J. C., 11 a. m. to 12 m., Gynecologic Clinics. Hospital Amphitheater.

MONDAY, JUNE 13.

Pathologic and Histologic Laboratories. Demonstrations by Drs. Ellis and Radasch. 9 to 10 a. m., College Building.
Rugh, J. T.—Treatment of Ankylosed Joints. 10 to 11:30 a. m, Hospital Amphitheater.
Dercum, F. X.—Neurologic Clinic. 12 to 1 p. m., Hospital Amphitheater.
Stelwagon, Henry W.—Dermatologic Clinic. 1 to 2 p. m., College Building.
Metheny, S. A. S.—X-Ray Demonstrations. 3 to 4 p. m., Hospital Amphitheater.
Roe, W. J.—Oral Clinic. 4:30 to 5:30 p. m. Hospital Amphitheater.

Tuesday, June 14.

Brubaker, A. P.—Demonstrations in Physiological Laboratory. 9 to 11 a. m., College Building.
Cohen, S. S.—Medical Clinic. 11 a. m. to 12 m., Hospital Amphitheater.
Brick, J. Coles.—Rectal Clinic. 12 to 1 p. m., Hospital Amphitheater.
Spencer, Geo. W.—Surgical Clinic. 2 to 3 p. m., Hospital Amphitheater.
Stewart, Francis T.—Surgical Clinic. 3 to 4 p. m., Hospital Amphitheater.
Hansell, Howard F.—Demonstrations of the Changes in the Fundus of Eye in Bright's Disease. 4 to 6 p. m., Philadelphia Hospital, Thirty-fourth and Spruce Sts.

Clinics at the Medico-Chirurgical Hospital.

Cherry Street, Seventeenth to Eighteenth Street.

Thursday, June 2.

Mann, James P.—Orthopedic Clinic. 11 a. m. to 12 m.
Christian, H. M.—Genito-Urinary Clinic. 12 m. to 1 p. m.
Gleason, Edward B.—Otologic Clinic. 3 p. m. to 4 p. m.

Friday, June 3.

Rodman, William L.—Surgical Clinic. 10 a. m. to 11 a. m.
Shoemaker, John V.—Dermatologic Clinic 11 a. m. to 12 m.
Anders, James M.—Medical Clinic. 12 m. to 1 p. m.
Mann, James P.—Orthopedic Clinic. 3 p. m. to 4 p. m.

Saturday June 4.

Ashton, W. Easterly.—Gynecologic Clinic. 10 a. m. to 11 a. m.
La Place, Ernest.—Surgical Clinic. 11 a. m. to 12 m.
Boyd, George M.—Obstetric Clinic. 12 m. to 1 p. m.
Rodman, William L.—Surgical Clinic. 3 p. m. to 4 p. m.

Monday, June 6.

Pearce, F. Savary.—Neurologic Clinic. 10 a. m. to 11 a. m.
Haehnlen, W. Frank.—Obstetric Clinic. 11 a. m. to 12 m.
Fox, L. Webster.—Ophthalmologic Clinic. 12 m. to 1 p. m.
Daland, Judson.—Medical Clinic. 3 p. m. to 4 p. m.

Saturday, June 11.

Pearce, F. Savary.—Neurologic Clinic. 9 a. m. to 10 a. m.
Ashton, W. Easterly.—Gynecologic Clinic. 10 a. m. to 11 a. m.
Anders, James M.—Medical Clinic. 11 a. m. to 12 m.

Monday June 13.

Shoemaker, John V.—Applied Therapeutics Clinic. 10 a. m. to 11 a. m.
Haehnlen, W. Frank.—Obstetric Clinic. 11 a. m. to 12 m.
Cleveland, Arthur H.—Laryngologic Clinic. 12 m. to 1 p. m.
Daland, Judson.—Medical Clinic. 3 p. m. to 4 p. m.

Tuesday, June 14.

Hollopeter, W. C.—Pediatric Clinic. 10 a. m. to 11 a. m.
La Place, Ernest.—Surgical Clinic. 11 a. m. to 12 m.
Fox, L. Webster.—Ophthalmologic Clinic. 12 m. to 1 p. m.
Boyd, George M.—Obstetric Clinic. 3 p. m. to 4 p. m.

Polyclinic Hospital Clinics.

Lombard Street, Above Eighteenth.

Monday, May 30.

McKee.—Pediatrics Clinic. 10 a. m.
Stewart.—Surgical Clinic. 10 a. m.
Vansant.—Nose and Throat Clinic. 11 a. m.
Goepp.—Medical Clinic. 12 m.
Schamberg.—Dermatology. 12 m.
Packard. Ear Clinic. 1 p. m.
Watson.—Nose and Throat Clinic. 2 p. m.
Ashton.—Medical Clinic. 2 p. m.
Christian.—Genito-Urinary Clinic. 5 p. m.
Roberts.—Surgical Clinic. 5 p. m.

Tuesday, May 31.

Hamill.—Pediatrics Clinic. 10 a. m.
Baldy.—Gynecologic Clinic. 10 a. m.
Steinbach.—Surgical Clinic. 11 a. m.
Gibb.—Nose and Throat Clinic. 11 a. m.
Eshner.—Medical Clinic. 12 m.
Schamberg.—Dermatology. 12 m.
Stout.—Ear Clinic. 1 p. m.
Baer.—Gynecologic Clinic. 2 p. m.
Young.—Orthopedic Clinic. 2 p. m.
Freeman.—Nose and Throat Clinic. 2 p. m.
Sailer.—Diseases of Stomach. 2 p. m.
Makuen.—Defects of Speech. 2 p. m.
Slocum.—Gynecologic Clinic. 5 p. m.
Riesman.—Medical Clinic. 5 p. m.

Wednesday, June 1.

McKee.—Pediatrics Clinic. 10 a. m.
Baldy.—Gynecologic Clinic. 10 a. m.
Vansant.—Nose and Throat Clinic. 11 a. m.
Goepp.—Medical Clinic. 12 m.
Schamberg.—Dermatology. 12 m.
Packard.—Ear Clinic. 1 p. m.
Watson.—Nose and Throat Clinic. 2 p. m.
Ashton.—Medical Clinic. 2 p. m.
Spiller.—Neurology. 3 p. m.
Christian.—Genito-Urinary Clinic. 4 p. m.

Thursday, June 2.

Hamill.—Pediatrics. 10 a. m.
Adler.—Rectal Diseases. 11 a. m.
Gibb.—Nose and Throat. 11 a. m.
Eshner.—Medical Clinic. 12 m.
Schamberg.—Dermatology. 12 m.
Stout.—Ear Clinic. 1 p. m.
Young.—Orthopedic Clinic. 2 p. m.
Sailer.—Diseases of Stomach. 2 p. m.
Freeman.—Nose and Throat. 2 p. m.
Makuen.—Defects of Speech. 2 p. m.
Spiller.—Neurology. 3 p. m.
Riesman.—Medical Clinic. 5 p. m.

Friday, June 3.

McKee.—Pediatrics. 10 a. m.
Stewart.—Surgical Clinic. 10 a. m.
Vansant.—Nose and Throat. 11 a. m.
Goepp.—Medical Clinic. 12 m.
Schamberg.—Dermatology. 12 m.
Packard.—Ear Clinic. 1 p. m.
Baer.—Gynecologic Clinic. 2 p. m.
Watson.—Nose and Throat Clinic. 2 p. m.
Ashton.—Medical Clinic. 2 p. m.
Spiller.—Neurology. 3 p. m.
Christian.—Genito-Urinary. 4 p. m.
Slocum.—Gynecologic Clinic. 5 p. m.

Saturday, June 4.

Hamill.—Pediatrics. 10 a. m.
Steinbach.—Surgical Clinic. 11 a. m.
Gibb.—Nose and Throat. 11 a. m.
Eshner.—Medical Clinic. 12 m.
Schamberg.—Dermatology. 12 m.
Stout.—Ear Clinic. 1 p. m.
Freeman.—Nose and Throat. 2 p. m.
Sailer.—Diseases of Stomach. 2 p. m.
Young.—Orthopedic Clinic. 2 p. m.
Makuen.—Defects of Speech. 2 p. m.
Spiller.—Neurology. 3 p. m.
Riesman.—Medical Clinic. 5 p. m.

Lectures at the Philadelphia Hospital.

Thirty-fourth and Pine Streets.

Saturday, June 4.

Haehnlen, W. F.—9 a. m.
Allyn, H. B.—10 a. m.

Monday, June 6.

Stengel, A.—10 a. m.
Cryer, M. H.—11 a. m.
Hansell, H. F.—4 p. m.

Saturday, June 11.

Peck, E. L.—9 a. m.
Riesman, David.—10 a. m.
Martin, Edward.—11 a. m.

Monday, June 13.

Spiller, Wm. G.—10 a. m.
Marshall, G. M.—11 a. m.
Potts, C. S.—3 p. m.
Hansell, H. F.—4 p. m.

Surgical Clinics at the German Hospital.

Girard and Corinthian Avenues.

Deaver.—June 1, 2, 4 and 14, 1 to 5 p. m.

Surgical Clinics at the Pennsylvania Hospital.

Eighth and Spruce Streets.

Harte.—June 4, 6 and 11, 11 a. m.

Society Proceedings.

COMING MEETINGS.

AMERICAN MEDICAL ASSOCIATION, ATLANTIC CITY, N. J., JUNE 7-10.
Arkansas Medical Society, Texarkana. May 3-5.
Louisiana State Medical Society, Lafayette, May 3-5.
Nebraska State Medical Society, Omaha, May 3-5.
Kansas Medical Society, Topeka, May 5-7.
Utah State Medical Society, Ogden, May 10-11.
Assn. of American Physicians, Washington, D. C., May 10-11.
West Virginia State Medical Association, Fairmont, May 10-11.
Oklahoma Territory Medical Society, Oklahoma City, May 11.
Illinois State Medical Society, Bloomington, May 17-19.
State Medical Association of Missouri, St. Louis, May 17-19.
Montana State Medical Association, Butte, May 18.
Kentucky State Medical Association, Lexington, May 18-20.
Iowa State Medical Society, Des Moines, May 18-20.
Ohio State Medical Society, Cleveland, May 18-20.
Indiana State Medical Association, Indianapolis, May 19-20.
New Hampshire Medical Society, Concord, May 19 20.
American Gynecological Society, Boston, Mass., May 24.
North Dakota State Medical Society, Fargo, May 25-26.
Connecticut Medical Society, New Haven, May 25-26.
Michigan State Medical Society, Grand Rapids, May 25-27.
Amer. Laryn., Rhin., and Otol. Society, Chicago, May 30-June 2.

American Medico-Psychological Association, St. Louis, May 30-June 3.
Medical Society of the State of North Carolina, Raleigh, June 1.
South Dakota State Medical Association, Redfield, June 1-2.
Maine Medical Association, Portland, June 1-3.
International Assn. of Railway Surgeons, Chicago, June 1-3.
Minnesota State Medical Society, Minneapolis, June 2-3.
American Therapeutic Society, New York City, June 2-4.
American Dermatological Association, Niagara Falls, June 2-4.
Rhode Island Medical Society, Providence, June 3.
Conf. of State and Prov. Bds. of Health of N. A., Wash., June 3-4.
Indian Territory Medical Association, Holdenville, June 3-5.
American Academy of Medicine, Atlantic City, June 4-6.
Medical Society of New Jersey, Atlantic City, June 4-7.
Nat. Conf. State Med. Exam. and Lic. Bds., Atlantic City, June 6.
American Medical Editors' Association, Atlantic City, June 6.
American Gastro-Enterological Association, Atlantic City, June 6.
Association of American Medical Colleges, Atlantic City, June 7.
Massachusetts Medical Society, Boston, June 7-8.
American Orthopedic Association, Atlantic City, June 7-9.
American Urological Association, Atlantic City, June 10-11.
Medical Society of Delaware, Lewes, June 14.
Wisconsin State Medical Society, Milwaukee, June 22.

THIRTY-THIRD GERMAN CONGRESS OF SURGERY.

Held at Berlin, April 6-9, 1904.

The President, Professor Braun of Göttingen, in the Chair.

The Pneumatic Cabinet for Operations in the Thorax.

The chief interest at the congress centered in the Sauerbruch air chamber, more fully described in another column, page 1192. The box used as an air chamber had been brought to the congress and its workings were demonstrated. Experiments with over-pressure in the bronchi induced through a tracheotomy opening were well tolerated by animals, but Sauerbruch and Mikulicz doubt whether the human heart would stand the strain of such a procedure. They have established by their research that the principal cause of the danger in case of pneumothorax is not so much the collapse of the lung as the dilatation of the vessels of the collapsed lung. This diverts the blood from the other lung, and, although the latter is functioning normally, as it does not receive sufficient blood, asphyxia is inevitable. Nervous influences also co-operate. The air chamber obviates also some of the difficulties in operating on the esophagus. The cardiac end of the stomach and of the esophagus can be drawn well up into the pleural cavity after detaching them from the diaphragm, and after resection the stump of the esophagus can be implanted in the stomach. The stomach in a dog was drawn up and sutured at this point, and the animal has shown no disturbances during the six weeks since. Another lived four weeks after resection and suture. The sutured esophagus and stomach can be pushed back into their normal place. When this is desired the thoracotomy is best done in the fifth or sixth interspace. The third to the fifth interspace is best adapted for intervention on the upper part of the esophagus. The traction at this point is so great that it is doubtful whether a suture would hold after resection. Mikulicz experimented by tying the ends of each stump and pushing them both out of sight, suturing the wound over them in tiers. The upper stump was then exposed through another incision above and fastened to the skin above the second interspace. The aim sought in this "surgery of the future" is to supply an artificial passageway for the food to pass from the throat into the fistula opening into the stomach, the gap being bridged by some prothesis. The air chamber was applied in the clinic in a case of resection of the esophagus, but the very weak patient succumbed to heart collapse. It was found in this case that the necessary minus atmospheric pressure was 12 mm. The Brauer modification of the air chamber consists in a small box to enclose the head of the subject to be operated on. The anesthetist stands outside and conducts the narcosis with his arms alone in the box, supplying the patient with oxygen plus chloroform. Petersen has still further modified the air chamber by making it double, one for inspiration and one for expiration. He has found that varying the pressure in the lungs exerted a powerful stimulant effect on the heart. He was able to revive animals after complete arrest of the heart. In addition to this, the transient collapse of the lung obtained by suspending the over-pressure for a moment, enables it to be palpated as never before. He applied this new method in resecting a sarcoma of the spine, encroaching on the thorax. The operation was successful, but the over-pressure was not reapplied during the tamponing later, and pneumothorax developed, the patient dying at once. He found that a difference of pressure of only 7 mm. was sufficient to avert collapse of the lungs.

Hepatopexy.

Mayer reported 6 cases of hepatopexy done by Depage of Brussels. He incises below the costal arch and detaches a strip of peritoneum 5 cm. wide, leaving it in contact with the upper lip of the wound. It is folded back on itself and sutured to the posterior aspect of the margin of the liver. All pains from the displaced liver vanish at once and permanently. He thinks that hepatoptosis is frequently overlooked. Franke of Brunswick employs a similar method of hepatopexy, but assures a firmer hold by passing a few sutures directly through the liver tissue.

Ablation of Tumors in Throat.

Gluck of Berlin stated that he now has a record of 9 cases treated by complete ablation of both larynx and pharynx from the base of the tongue to the entrance of the thorax. The esophagus is substituted by a canula, with which the patient is able to swallow without difficulty. The artificial larynx allows intelligible speech. All his 9 patients have been permanently cured to date.

Tendon Transplantation.

Hoffa exhibited a few patients to illustrate the benefits derived from tendon transplantation in his 100 operations. He thinks that a pink tint in the muscle is not indispensable, although desirable. He also mentioned the necessity for maintaining a certain amount of tension in the transplanted tendon. Even if the paralysis is beyond hope of restitution, transplantation of the tendons will enable the subject to discard mechanical support.

Five New Operations on Biliary Passages.

Kehr of Halberstadt has not been able to find in the literature any record of operations similar to five he has performed during the last year. One was a ligature of the hepatic artery for aneurism; one was the direct implantation of the hepatic duct in the duodenum; one was an operation on the common bile duct, which required complete exclusion of the duodenum. Both ends were tied and gastroenterostomy done. In the fourth operation a pancreatic cyst was made to open directly into the gall bladder, and the latter in the stomach, near the pylorus. All these patients recovered. This makes the fourteenth case in which he has made the gall bladder open into the stomach. In the fifth novel operation hepato-cholangio-enterostomy was done. The patient has since died, but no particulars are known after she left the hospital the fifth week in good condition. Enderlen of Marburg remarked that he had never been able to obtain a permanent communication between the intrahepatic biliary passages and the intestine. The temporary opening always healed over later. He, with others, thinks that the common bile duct in Kehr's case probably regained its permeability.

Radiotherapy of Cancer.

A number of communications on this subject were presented, Perthes of Leipsic reporting 29 cases of cancer treated with the Röntgen rays. He denies that they have any action below a depth of 2 or 3 cm. Lassar interrupts treatment as soon as a dermatitis becomes apparent. Jordan of Heidelberg thinks that recurrence of cancer takes the form of the original growth. It appears early when the latter was of rapid growth, while it may not develop for many years in case of a slowly growing neoplasm. In this connection we call attention to a new mode of measuring the force and penetrability of the Röntgen rays, not announced until two days after the congress, by L. Freund of Vienna. It is based on the chemical action of the rays on a colored fluid, a chemically pure 2 per cent. solution of iodin in pure chloroform, prepared and kept away from the light. The sensibility of this fluid to the Röntgen rays is such that a three-minutes' exposure alters the tint considerably, as the rays oxidate the iodin and liberate it. The color changes are much more sensitive than with the chromoradiometers hitherto used, while they afford an exact chemical measure of the power of the rays.

TENNESSEE STATE MEDICAL ASSOCIATION.

Seventy-first Annual Session, held at Chattanooga, April 12 to 14, 1904.

(Concluded from page 1095.)

Membranous Croup and Diphtheria.

Dr. J. T. Herron, Jackson, reported nine cases of membranous croup, in all of which he had used antitoxin with very beneficial results. He believes that if antitoxin were given early and in large doses, there would be very little need for either intubation or tracheotomy.

Dr. J. B. Witherington, Mumford, gave a résumé of cases treated with antitoxin. In all his professional career, he said, he had never used any remedy for any disease that gave him such uniformly satisfactory results as antitoxin in the early stages of diphtheria.

DISCUSSION.

Drs. Frank Trestor Smith, J. A. Crook, William S. Scott, C. P. Fox, J. S. Nowlin and Louis Leroy concurred in the main with the essayists and spoke of having obtained gratifying results from the use of antitoxin.

Chronic Dysentery—A Protest.

Dr. A. B. Cook, Nashville, wished the term "chronic dysentery" to be dropped from the medical vocabulary. He emphasized the following points: 1. Almost without exception the condition so named is purely local. 2. The term chronic dysentery, as ordinarily employed, does not and can not refer to a definite pathologic entity, but rather covers a wide variety of local diseases in no way related to dysentery. 3. A chronic discharge from the bowels, unattended by the well-recognized symptoms of a general systemic disease process, always indicates a lesion of the rectum, sigmoid or colon. 4. The idea of a necessary relation between bloody discharges and chronic dysentery is based on a false assumption and should be both abandoned and forgotten.

Abscess of the Brain.

Dr. W. A. Bryan, Nashville, reported an interesting case, and emphasized the following statements: 1. Cerebral abscess is to be considered chronic after it has been present six weeks. It requires that time for the formation of the so-called pyogenic membrane, which is nothing more than a fibrous limiting wall. 2. A chronic brain abscess may last indefinitely. Cases are reported varying in duration from a few weeks to as much as twenty years. 3. Chronic abscess of the brain may remain confined within the limiting wall indefinitely, causing few or no symptoms, and by extension through the fibrous wall involve the meninges or rupture into a ventricle, producing marked secondary symptoms and early death. 4. Brain abscess frequently follows an otitis media, without evidence of mastoid disease, and might do so, as in his case, even when the cells are completely necrotic. 5. It may result from otitis by direct extension, by large necrotic involvement of the bone, or by thrombophlebitis. 6. Pus from brain abscess is thin, viscid, like synovial fluid, and acid. 7. The most important symptoms, aside from peripheral disturbances, are pain, mental hebetude, subnormal temperature, slow pulse, and vomiting. 8. Increase in temperature above normal signifies either a new involvement of brain tissue or inflammation of the meninges. The latter is usually accompanied by chill. 9. Congestion of the veins of the fundus may be greater on the sound than it is on the diseased side.

Holocain.

Dr. Frank Trestor Smith, Chattanooga, said that holocain solutions may be sterilized by boiling without affecting the drug; it produces no abrasion of the corneal epithelium, and does not interfere with healing of the mucous membrane; it has no effect on the circulation, neither causing anemia, as does cocain, nor hyperemia, as does eucain, and it does not affect the pupil, the accommodation, nor the tension of the eye. He therefore believes it to be the best local anesthetic for general use, and that it should supersede cocain almost entirely.

Conservative Surgery of the Hand.

Dr. Paul F. Eve, Nashville, cited cases which illustrated in a striking manner what can be accomplished by conservative surgery of the hand. In the treatment of the various wounds of the hand, he said every attention should be paid to thorough cleansing and drainage, and no wound should be thought too trivial to receive proper attention. Many a hand has been rendered partially or wholly useless by the improper treatment of injuries.

Present Status of the Etiology of Malignant Growths.

Dr. Raymond Wallace, Chattanooga, stated that inasmuch as the dividing line between various neoplasms is so difficult to determine, and the transition from a non-malignant to a malignant growth depends on such apparently slight causes; that contrary to all infectious conditions which might be considered analogous, there has never been recorded a case of malignancy in the new-born, and exceedingly few cases in childhood, which also militates against any theory of direct heredity; a multiplex and varying etiology seems the most plausible. Intrinsic irritation of the cell proliferating mechanism in the nucleus may, with the advance of cell chemistry, yield certain autogenous factors, but the following may be summarized as extrinsic factors; Various physical, chemical or physiologic irritations and irritations caused by parasitic life, any of which cause an evident disturbance in cell proliferation, which leads to abnormal proliferation and the consequent formation of neoplastic growths. The degree of malignancy depends on the rate and type of proliferation, and the loss of function and consequent reversion of type in the proliferating cells attest the theory of nuclear or chromatin alteration or rearrangement.

Visual Inspection of Railway Employes.

Dr. C. M. Capps, Knoxville, urged that railway companies should realize the importance of having a competent inspector for each railroad division, as a means of more economic management.

The Treatment of Puerperal Infection.

Dr. J. T. Altman, Nashville, urged the importance of more careful prophylaxis. Since the advent of bacteriology, the true cause and pathology of puerperal infection has been settled, and entirely new ideas of treatment advanced, which, he thought, was a decided step forward in the management of the severer types of this disastrous condition. Surgical treatment is not satisfactory.

Venereal Disease and the Social Order.

Dr. O. J. Porter, Columbia, discussed this subject at great length, and concluded that earlier marriages would prove a telling factor among the agencies which tend to lessen the prevalence of venereal diseases.

After-Treatment of Abdominal Section.

Dr. L. E. Burch, Nashville, emphasized the avoidance of opium and the early movement of the bowels in desperate cases in the after-treatment of abdominal sections; also the absence of all relatives and friends from the sick-room until the crisis has passed; the administration of water in almost satisfying quantities from the first; the early propping up in bed, especially in old people; the avoidance of milk as a diet until the sixth day, and last but not least, the use of a saline enema at the completion of every abdominal operation, for the relief of thirst.

Internal Antisepsis in Typhoid Fever.

Dr. J. A. Crook, Jackson, advocated the principle of drainage and antisepsis as the important features in the treatment of typhoid fever, and reported his successful experience in the use of carbonate of guaiacol combined with thymol, menthol and eucalyptol, as internal antiseptics in this malady. While many of the prominent members of the profession had denied the possibility of intestinal antisepsis with any drug or combination of drugs, yet the clinical experience of hundreds who had used intestinal antisepsis proved that the bowel may be rendered practically sterile. Some of these clinical reports the author quoted. In most instances the diagnosis was established by the Widal test and diazo-reaction. Acetozone was mentioned as a valuable remedy in this disease, and testimony given in favor of its use.

Sanitary Advances.

Dr. E. H. Jones, Murfreesboro, said that American sanitary measures and precautions make it possible to inhabit the jungles of our new island possessions, without which the death-dealing enemies to the human organism would devastate our armies, prospectors and speculators. He believes that the much-contended-for army canteen does not add to, but rather depreciates, the resisting forces in combating the prevailing maladies incident to tropical climes.

Tetanus.

Dr. T. J. Happel, Trenton, referred to the exhaustive review of this subject, which was published in The Journal, Aug. 29, 1903, after which he reported three cases in which he obtained good results from the use of calabar bean. He said that Shoemaker calls the calabar bean a curative agent of great value in tetanus, and that under its use in full doses, pressed to its physiologic effects, fully one-half the cases recover.

Other Papers Read.

Dr. W. D. Haggard, Nashville, reported a case of gallstone in the common duct, one of cyst in the kidney, a case of cancer of the umbilicus, a fibromyoma of the uterus, and tubercular ostitis of the femur, and exhibited specimens.

In a symposium on pneumonia Dr. Louis Leroy, Nashville, discussed the bacteriology and pathology; Dr. John A. Witherspoon, Nashville, the early diagnosis and semeiology; Dr. E. G. Wood, Nashville, medicinal treatment; Dr. Thomas L. Maddin, Nashville, general considerations; Dr. J. S. Cain, Nashville, the history and value of blood-letting; Dr. E. A. Cobleigh, Chattanooga, the local treatment, and Dr. C. P. McNab, Knoxville, some causes of error in the diagnosis of pulmonary affections and their explanation.

Papers were also read as follows:

"The Microscope in Diagnosis," by Dr. W. P. King, Lutts; "Inflammation and Ulceration of Sigmoid Flexure," by Dr. F. B. Reagor, Shelbyville; "Duties of the Profession Concerning Fanaticism, Frauds, Fools and Fads," by Dr. Y. L. Abernathy, Chattanooga; "The General Practitioner's Relation to Insanity and Its Management," by Dr. M. Campbell, Knoxville; "Hysteria," by Dr. J. W. McQuillan, Chattanooga; "Therapy of Sodium Chlorid," by Dr. J. S. Nowlin, Shelbyville; "La Grippe and Its Complications," by Dr. A. J. Swaney, Gallatin, and "Leucocytes in Typhoid Fever," by Dr. William Litterer, Nashville.

Therapeutics.

[Our readers are invited to send favorite prescriptions or outlines of treatment, such as have been tried and found useful, for publication in these columns. The writer's name must be attached, but it will be published or omitted as he may prefer. It is the aim of this department to aid the general practitioner by giving practical prescriptions and, in brief, methods of treatment for the diseases seen especially in every-day practice. Proper inquiries concerning general formulae and outlines of treatment are answered in these columns without allusion to inquirer.]

Dysmenorrhea in Girls.

In cases of dysmenorrhea in girls who have mitral stenosis the *Jour. des Prac.* recommends moderate doses of digitalis and a suppository containing belladonna. The patient should be kept in bed. If there is excessive flow the following combination should be prescribed:

℞.	Ergotin	gr. iss	09
	Quin. sulph.	gr. 2/5	025
	Pulv. digitalis fol.	gr. 1/5	012
	Pulv. cocoæ q. s.		

M. Ft. capsula No. i. Sig.: Two to four capsules daily.

In some cases hydrastis and viburnum prunifolium may be substituted for the ergot combined in the following proportions:

℞.	Tinct. hydrastis		
	Ext. viburni prunifolii flu., āā	ʒii	8

M. Sig.: Ten drops every two hours.

Painting the nasal mucous membrane with cocain has been recommended to relieve the painful menstruation:

℞.	Cocainæ hydrochlor.	gr. x	65
	Aquæ destil. q. s. ad	℥ss	15

M. Sig.: To be applied locally to the nasal mucous membrane until its anesthetic effects are produced.

Acne of the Face.

The following combination containing betulol (which is a methyl-oleo-salicylate comp.) is of service in the treatment of acne of the face:

℞.	Betulol		
	Ung. storacis, āā	gr. xv	1
	Lanolini (anhydrous)	ʒv	20

M. Ft. unguentum. Sig.: Apply with friction every night for ten days, then stop for ten days and recommence the treatment.

Gallstones.

Hirtz, in the *Internat. Med. Annual*, considers it important that patients having a tendency to gallstones should take moderate exercise, and that women should not wear tight corsets. He thinks it of value to confine the patient to a milk diet at times, and to add Vichy water to the milk. When symptoms point to an attack the patient should be put to bed. In order to quiet the patient the author recommends hot baths, lasting from twenty-five minutes to one hour, and the application to the painful region of poultices containing laudanum, or hot compresses, or the following liniment:

℞.	Tinct. opii	ʒvi	24
	Spts. chloroformi	ʒi	4
	Lin. camphoræ	℥v	150

M. Ft. linimentum. Sig.: Apply locally.

At the same time the following combination should be given:

℞.	Antipyrini	gr. xxx	2
	Syr. codeinæ	℥ii	60
	Aq. chloroformi	℥iv	120

M. Sig.: One teaspoonful every half hour or hour while the pain lasts.

In other cases it is advisable to administer anodyne preparations by the bowel. The following rectal injection is of service in such cases:

℞.	Antipyrini	gr. xv	1
	Vini opii	gtt. xv	1
	Aquæ (warm)	℥iv	120

M. Sig.: Thoroughly cleanse the bowel and introduce this solution per rectum. Morphin will have to be given hypodermically in the violent crises. The kidneys at the same time should be carefully watched in order to prevent a deficient urinary flow. Between the attacks hot baths and hot compresses are to be applied to the region of the liver. The bowels are to be moved by rhubarb, cascara, or Carlsbad salts, and intestinal antisepsis maintained by the administration of sodium benzoate or salicylate, or combined as follows:

℞.	Sodii benzoatis	ʒii	8
	Sodii salicylatis	ʒiv	15

M. Ft. cap. No. 30. Sig.: One capsule three times a day. Internally olive oil is worth trying. Glycerin is also recommended, given in ½ to 1 ounce doses (15.-30.) during the period when the colic is most pronounced. Sodium glycocholate is also said to be of service in dissolving gallstones or preventing their formation, given in five-grain (30.) doses three times a day. As to the limits of medicinal treatment Taylor states that operation is not absolutely necessary unless: 1. The patient has suffered from repeated and exhausting attacks from colic.

2. Unless there are signs of suppuration in the biliary passages.

3. Unless there are signs of complete obstruction of the common bile duct. The following suggestions in regard to the time when operation is necessary have been offered by Kehr: In acute cholecystitis, in chronic obstruction of the common

duct, in those forms of colic in which the condition is grave and medicinal treatment unsuccessful, when there is an angiocholitis, or abscess of the liver, in cases of perforation and signs of peritonitis make their appearance.

Hemorrhoids.

The following combinations, serving as a palliative treatment of hemorrhoids, are recommended by *Centralbl. f. Ther.*:

℞.	Pulv. opii	gr. i		06
	Plumbi acetatis			
	Ung. benzoatis, āā	gr. iii		20
	Butyr. cacao	gr. xxii	1	50

M. Ft. suppos. No. x. Sig.: One suppository to be inserted morning and evening; or:

℞.	Spts. chloroformi	gtt. xxx	2
	Vitelli ovi unius		
	Aq. font. q. s. ad	℥iiiss	100

M. Ft. emulsio. Sig.: As an enema; or:

℞.	Bismuthi iodid.	gr. x		65
	Zinci oxidi	gr. viii		50
	Balsami Peruv.	gr. iiss		15
	Ceræ albæ	gr. iii		20
	Butyr. cacao	gr. xxii	1	50

M. Ft. suppos. No. x. Sig.: One suppository to be inserted morning and evening; or:

℞.	Menthol	gr. xv	1
	Cocainæ	gr. xxx	2
	Ext. secal. cornut. flu.		
	Ext. hamamel. virg. flu., āā	℥ss	15

M. Sig.: Apply locally; or:

℞.	Alphæ eucainæ	gr. ss		03
	Morph. muriatis	gr. 1/6		01
	Antipyrini	gr. viiss		50
	Aquæ destil.	ʒv	20	

M. Sig.: As an injection into the rectum; or:

℞.	Ext. secal. cornut.	gr. iii		20
	Morph. muriatis	gr. 1/6		01
	Butyr. cacao	gr. xxii	1	50

M. Ft. suppos. No. x. Sig.: Insert one suppository morning and evening; or:

℞.	Alumin.	gr. lxxv	5
	Liq. plumbi subacet.	gr. xv	1
	Olei olivæ	ʒss	2
	Lanolini	℥iss	45

M. Ft. unguentum. Sig.: To be applied locally night and morning after thoroughly cleansing the affected areas.

Gout.

A. P. Luff in *Ther. Rev.* states that gout is a metabolic autotoxemia, both intestinal and hepatic, which is followed by a deposition of sodium biurate in the joints and tissues.

In the treatment of gout, according to the author, each patient must be studied individually regarding his habits and mode of life. The treatment is divided as follows: 1. The treatment of the paroxysm and the speedy relief of pain.

2. The treatment of the subacute state and the prevention of the recurrence of attacks by promoting the elimination of uric acid and checking its formation through careful attention to diet and hygiene.

3. The treatment of the affected joints with the object of removing uratic deposits and preventing permanent deformity.

He treats the gouty paroxysm by slight elevation of the limb above the body, by warm pack to the joints and by arranging the bed clothing so they do not touch the part. The warm pack consists of cotton wool saturated with the following lotion and the whole covered with oil silk:

℞.	Sod. carb.	℥iv	120
	Linimenti bellad.	℥ii	60
	Tinct. opii	℥iss	45
	Aquæ	℥viii	240

M. Ft. linimentum. Sig.: Apply locally by mixing a small quantity with an equal quantity of hot water. He speaks against leeching, blistering or incisions. Internally the wine of colchicum root is advised, as it reduces the inflammation, relieves the pain and shortens the attack, followed by a mixture of the colchicum with the citrate of potassium, grams 40-60 (2.65-4.00) three times a day. After the attack the colchicum should be left off gradually. Blue mass should be given to move the bowels, followed the next morning by Epsom salts. Chloral, sulphonal, trional or hyoscyamus may be given to produce sleep, but opium should be avoided. Alcohol should be given very sparingly, and only for a weak heart. Meats and beef extracts should be avoided. Between the paroxysms small doses of the resin of guaiac and colchicum are given combined with nux vomica and gentian. For the relief of constipation he advises sulphur or the compound licorice powder with occasional doses of blue mass.

The elimination of uric acid is promoted by the administration of the citrate or bicarbonate of potassium and by the use of as little table salt as possible. The potassium salts are superior to the sodium and lithium salts. Potassium iodid internally tends to lessen the inflammatory thickening of the fibrous structures of the joint, but no medicines will dissolve the sodium urate deposits.

Massage and hot baths are contraindicated in acute gout, but are of value in the chronic form. Meat should not be used more than once a day, but no one class of foods should be entirely excluded without studying the individual case. Intestinal fermentation and putrefaction should be avoided; starchy foods should be used sparingly. The choice of mineral water and mineral springs depends on the purpose for which it is chosen.

Medicolegal.

Visible Marks on Body—Delay in Applying for Autopsy.—The Fourth Appellate Division of the Supreme Court of New York had before it, in the case of Root vs. London Guarantee and Accident Co., a policy of insurance "against bodily injuries sustained wholly and exclusively through external violence occasioned accidentally by visible means," which further provided, "that this insurance does not cover injuries of which there is no visible mark on the body (the body itself in case of death not being deemed such mark)." The death of the insured was attributed by the physicians to angina pectoris, caused by a fall from his bicycle, in which he also fractured his right femur. But the physicians testified that the heart spasms were not attributable to the broken femur, and, as there was no visible mark on the back or chest, the company contended that the anginal pains, even though resulting from the accident, did not bring the case within the compass of the policy. The court, however, thinks this too narrow a construction to put on its language. It says that where it is plain that an accident has occurred, and severe injuries have resulted, and it is a fair deduction from the circumstances that death ensued as the direct consequence of such accident, the policy should be construed to hold the company liable, even though no contusions or marks appear on the body. A man may be killed by a blow over the heart, or by drowning, or by falling from a balloon, and death ensue before reaching the ground, and in each instance there may be no mark on the body, yet death is by accidental means, and should be within the purview of the policy. Furthermore, it says that the insured's pallor and emaciation and decline were apparent after the accident, and furnished visible signs of the injuries. Then, the insured having died on Sunday and been buried on Wednesday, a representative of the company knowing about the death the day after it occurred, the court holds that delay until Thursday, the day after the burial, in applying to have an autopsy performed was unreasonable.

Delaying Calling Physician to Treat Injuries to Eye.—The case of Robertson vs. Texas & Pacific Railway Co. was brought to recover for injuries from a red-hot cinder falling into the plaintiff's eye. There was a special plea of contributory negligence on his part, in not having his injuries properly treated by competent physicians until the injury was rendered more serious than it otherwise would have been. The main charge to the jury, the Court of Civil Appeals of Texas further says, contained the following: "If you should find that the plaintiff was injured by negligence on defendant's part, so as to entitle him to recover, but you should further find that the plaintiff was guilty of negligence in delaying calling a physician and having his injuries treated, and that such negligence on his part aggravated his suffering, and increased his injuries and damages therefrom, you can not, in such case, allow anything for such increase of his injuries or damages, but can allow him for such damages as you find would have been sustained by him for his injuries, had he not been guilty of negligence in failing to obtain medical treatment for himself." Then there was the following special charge given the jury: "The law requires from one who receives an accident or injury to use the same degree of care and caution which a man of ordinary care and caution would use to lessen the effects of the accident, and make as light as practicable the injury. Therefore, you are instructed, if you believe from the evidence that a spark escaped from the engine pulling defendant's train on which plaintiff was riding, and struck him on or about the eye, and if you further believe from the evidence that plaintiff failed to give the same proper medical attention and treatment, and, in so failing, was wanting in ordinary care and prudence, and that the injury, if any, he received, was thus increased, aggravated, or made more difficult to cure, you are instructed that for such increase or aggravation of injury he can recover nothing, but that, if you allow him any damages, it will only be for such injury as would have been inflicted on him, if any, if he had used the same degree of care and prudence to have the same properly treated after the accident that a man of ordinary care and prudence would have used, if you believe from the evidence that he was wanting in such care." Complaint was made of the main charge and that the charges were conflicting and inconsistent. But the court says that the main charge was correct, and fairly submitted the issue of contributory negligence on the part of the plaintiff in failing to use ordinary care to have his injuries treated. It would have been proper to have refused any further instruction on this phase of the case. The special charge, however, did not wholly preclude a recovery by plaintiff, but sought to limit the recovery to "such damages as you find would have been sustained by him for his injuries, had he not been guilty of negligence in failing to obtain medical treatment for himself." The main charge was not so full as the special charge, but they were not inconsistent.

Status of Physician Not Wanted by Patient—Privilege.—The Court of Appeals of New York says, in the case of Meyer vs. Supreme Lodge Knights of Pythias, that the insured was *in extremis*, incapable of acting or deciding for himself, and, from the necessity of the case, any one was authorized to call a physician to treat him. Without his knowledge or consent, a physician was called for that purpose, and for that purpose alone he attended. He found the insured in bed in an upper room of a hotel, "suffering intense pain and vomiting." The insured told him to get out of the room—that he did not want him there—but he did not leave. He remained to treat him as a physician, and, in order to treat him intelligently, tried to find out what the matter was. From information from him, partly in answer to questions, and partly through voluntary disclosures, and from observation of the physical symptoms, he decided that it was a case of arsenical poisoning. Thus informed as to the nature of the disease, he at once administered a remedy, and soon followed it by another. The insured objected, and tried to curse him away from his bedside, but the physician, loyal to the instincts of his profession, refused to listen to the ravings of the would-be suicide, and continued to prescribe in order to relieve suffering and prolong life. The court holds that there was no error in not allowing the physician to disclose on the trial of this case the information acquired under these circumstances. It says that the question was whether there was enough evidence to warrant the trial judge in deciding, as a preliminary question of fact, that such information was acquired "in attending a patient, in a professional capacity," and that it "was necessary to enable him to act in that capacity." The witness was called as a physician, he attended as a physician, he made a diagnosis as a physician, and he administered remedies as a physician. In all that he did he acted in a professional capacity. While it was true that in all he did he acted against the will and in spite of the remonstrance of a man whose condition imperatively called for professional treatment, still the meeting was professional in nature, and all that he said or did was strictly in the line of his profession. Was the subject any less a patient, within the meaning and object of the statute, because he was forced to submit to ministrations designed to save his life? Was the doctor guilty of assault when he gave the hypodermic injection? Was he bound to leave him there to die, without an effort to help him? Was the statute designed to protect those only who are treated by consent, but not those treated through necessity? Does it not mean by a "patient" at least one who is consciously treated by a physician, even without his consent, when the facts tend to show that through bodily suffering his mind had partially lost its hold? Do our humane laws make it the duty of a physician to leave the bedside of a dying man, because he demands it, and, if he remains and relieves him by physical touch, hold him guilty of assault? Either this physician was the physician of the insured, or he committed an assault on him, and was guilty of a crime. If the wife of the insured had called the physician, she would have acted as an agent by implied authority. The bellboy who, in fact, called him, also acted on implied authority, and, when the physician came, the act of the agent in calling him, if subject to revocation in the actual case, would have been in the supposed case. While the physician in either case could have retired, if he remained in either he remained as a physician, the sick man being his patient, and he was acting in a professional capacity when, as a duly licensed physician, he actually treated the insured as a patient. When one who is sick unto death is in fact treated by a physician as a patient, even against his will, he becomes the patient of that physician, by operation of law. The same is true of one who is unconscious and unable to speak for himself. If the insured had been in a comatose state when the physician arrived, the existence of the professional relation could not be questioned. The relation of physician and patient, so far as the statute under consideration is concerned, springs from the fact of professional treatment, independent of the cause which led to such treatment. An examination made in order to prescribe establishes the same relation. So the court is of the opinion that the physician who treated the insured at the hotel occupied the same confidential relation to him as did the physicians at the hospital. The fact that the patient told the physician several times to let him alone, as he wished to die, expressing himself in a brutal and profane manner, did not negative the existence of the relation of physician and patient. The fact of treatment was the decisive test in this case. The statute impresses absolute secrecy on all knowledge acquired by a physician in a sickroom that is necessary to enable him to properly treat the sick person, whether the treatment be with or without his consent.

Current Medical Literature.

AMERICAN.

Titles marked with an asterisk (*) are abstracted below.

American Medicine, Philadelphia.

April 16.

1 *A Review of Literature Relating to Serum Diagnosis. Randle C. Rosenberger.
2 *Appendicitis: Its Relation to Pelvic Inflammation. J. M. Baldy.
3 *Resuscitation After Apparent Death in Chloroform Anesthesia; with a Report of Two Cases. Emil King.
4 *Case of Pemphigus Vulgaris, with Some Observations on Its Bacteriology. A. C. Eustis.
5 Blood Iron. Edward T. Williams.
6 Multiple Myeloma. George F. Zinninger.

1. **Serum Diagnosis.**—Rosenberger attempts to give only the more recent progress in serum diagnosis, and the details of technic are extensively enumerated from 137 communications on the subject in international literature. In summarizing he says that out of 17,280 cases of enteric fever, 16,352 gave positive reactions and 928 did not, leaving 94.6 per cent. positive. In paratyphoid fever 42 cases have been collated and in 40 of these—95.2 per cent.—a positive reaction was obtained. In tuberculosis 221 cases were enumerated, 194 of which, or 87.7 per cent., were positive. Of 390 cases of bacil-

lary dysentery, 318, or 80.2 per cent., gave positive reactions. In the other diseases only a small number have been reported, and hence no reasonable estimate can be given of the percentage of reactions obtainable.

2. **Appendicitis and Pelvic Inflammation.**—Baldy disbelieves in the causal relationship of appendicitis with pelvic inflammation. In his experience the two diseases are rarely associated, and then only as a coincidence. He has not found a single case in which, having found pus in the fallopian tube, he has found pus in the involved vermiform appendix, nor has he found pus in a tube or ovary complicating a perforated or gangrenous appendix.

3. **Chloroform Anesthesia.**—King particularly emphasizes the following points:

1. Deep anesthesia is always a condition of danger. Therefore every precaution must be taken to guard against danger.
2. When serious accident occurs we must have ready a well-matured plan of treatment which meets the indication in the best possible manner.
3. Death usually resulting from failure of the vital centers, the first indication is their stimulation. Artificial respiration, tongue traction and heart compression should be first tried. The application of cold, ether being poured on the abdomen according to Hare, inversion, suspension and succussion, dilation of the sphincter ani and electricity are worthy of trial if the others fail.
4 Hypodermic injections during the stage of collapse are a waste of time. The arterial pressure being *nil* there can be no effect from medication unless the injection be into the heart. They may do good before cardiac arrest or after the contractions are resumed, and then the remedies of value are limited to a few.
5. Injections of ether and alcohol in any form are apt to be harmful. Their effect in overdose is so similar to chloroform in their action on the vital centers that we only add to the danger by their use.
6. Mechanical efforts at resuscitation must not be so rough that internal organs are injured. That this is possible is proved by reported cases where the liver was torn, blood found in the pleura and the tongue wounded.
7. Since we can not know when the molecular changes separating true from seeming death take place our efforts at resuscitation should continue for at least one hour.

4. **Pemphigus Vulgaris.**—Eustis, after reporting a case, gives the results of inoculation and cultural experiments, as well as noticing the previous bacteriologic work in this line. He concludes that in cases of pemphigus a diplococcus can be isolated from the bullas, and when injected intravenously into a rabbit will cause death. A diplococcus removed from the rabbit's blood and identical with that obtained from a case of pemphigus, when injected into a pig, produced a pustular eruption in the latter animal, attended with mild constitutional disturbances. Arsenic is the main remedy to be relied on in the treatment of the disease.

Boston Medical and Surgical Journal.

April 7.

7 *Infectious Arthritis. Joel E. Goldthwait.
8 *Some Points on the Diagnosis and Treatment of Certain Neglected Minor Surgical Lesions. E. A. Codman.
9 *Radical Cure of Inguinal Hernia. John O'Conor.

April 14.

10 *Bilateral Facial Atrophy, with Report of a Case and Its Treatment by the Subcutaneous Injection of Paraffin. Benjamin T. Burley.
11 A Many phased Case of Chorea. Horace E. Marion.
12 A Case of Huntington's Chorea; Its Social Aspects. J. J. Putnam.
13 *A New Treatment of Morphin Addiction. William S. Birge.

7. **Infectious Arthritis.**—By infectious arthritis Goldthwait designates a joint disease resulting from some infectious organism, usually occurring as a sequel of some other disease, with abrupt onset and acute symptoms, being in marked contrast in its progress with atrophic or rheumatoid arthritis. The result of the infection, of course, depends on the more or less dangerous character of the organism. The condition of the blood, lymphatics, urine, etc., are noted. Cases are reported illustrating the different types.

8. **Minor Surgical Lesions.**—In his paper Codman confines himself to minor injuries of the wrist, shoulder and ankle, but remarks that the principles apply to other joints. He says one is astonished to find how often the presence of ecchymosis and accurately localized tenderness are proofs of fracture where no crepitus, deformity or abnormal mobility can be obtained.

9. **Inguinal Hernia.**—The operation here described by O'Conor consists in first, a four-inch incision over the line of the inguinal canal, isolating and opening the sac, separating the adhesions and pushing its contents back into the abdomen. The sac is then drawn downward and, keeping the finger within the sac near the internal ring, he transfixes and ligates the sac with fine silk, then divides it about half an inch below the ligature; the stump recedes into the abdomen and the distal portion is removed. The remainder of the operation is described as follows:

The conjoined tendon and Gimbernat's ligament are next differentiated from surrounding structures, and with left index finger introduced into canal as a guide four "strong" fishing gut sutures are passed from within outwards by means of a full curved hernia needle, about one-third of an inch apart, through the projecting ledge of Gimbernat and external oblique, the ends of sutures are retained outside external oblique and the needle withdrawn.

The free ends are next threaded on a hernia needle with an opposite curve and are carried upward from within outward into substance of and through conjoined tendon. The ends of these sutures are similarly retained outside sheath of tendon and the needle withdrawn.

A straight Reverdin needle, or sinus forceps, is next entered through each suture hole in tendon, passed across just beneath aponeurosis and made to emerge at corresponding suture hole in external oblique, the end of this part of suture is caught in needle or forceps, drawn across and out through suture hole in conjoined tendon, thus both ends of each suture emerge from the same aperture in tendon, and form a most efficient submuscular stitch, excepting the fourth or lowest suture, which is only partially submuscular in that it crosses in front of external ring. These sutures are tied with sufficient force so as to approximate the tendon and Gimbernat, care being taken on adjustment of lower suture so as not to unduly compress the cord. I generally allow enough room for the insertion of my little finger.

The ends of sutures are snipped off and the knots retreat into substance of tendon and each little stitch aperture in sheath of latter is closed by fine catgut suture.

The operation which takes from ten to fifteen minutes to perform is concluded by uniting the skin wound with a continuous blanket suture.

He claims the following advantages: Simplicity, the utilization of the two strongest and most suitable structures for the barrier formation, non-interference with the position and structure of the cord, and freedom from subsequent supervention of orchitis, while there is no splitting up of structures which are never anatomically replaced. He insists on the full use of the left index finger introduced in the inguinal canal during the application of the sutures, protecting the structure of the cord, differentiating the projecting ledge of Gimbernat, and obviating the danger of injuring the external iliac vessels. In his 50 cases no accident occurred. Iodoform gauze dressing is applied, the skin suture removed on the seventh day and the patient allowed out of bed in two weeks.

10. **Facial Atrophy.**—The case reported by Burley was treated by paraffin injections to replace the lost tissue, with marked success, as appears from the illustration and the satisfaction of the patient.

13. **The Morphin Habit.**—Birge's method of treatment is the use of mandragorin, whose employment he had occasion to observe in a private institution in one of the southern states. Five drops of a specially prepared solution are given hypodermically with an eighth of a grain of pilocarpin, and this dose is repeated every two hours. If the symptoms of abstinence manifest themselves the dose may be increased until comfort ensues, even if 15 or sometimes 20 drops of the solution are taken. At the end of forty-eight hours the antidotal and eliminative effect of the remedies is usually complete. A dose of ⅛ or ¼ of a grain of morphin will then produce the same effect as it would before the morphin addiction. That no bad results have ever followed this treatment is shown by the statistics kept of over 1,000 cases in the past three years in the Homestead Sanitarium in Memphis. For heart weakness strychnia nitrate and spartein should be given hypodermically for three or four days afterward, and thorough eliminative measures should precede the dosing.

New York Medical Journal.

April 16.

14 *Ureteral Catheterism as a Routine Method of Diagnosis in Renal Disease. John Van Der Poel.
15 *Penetrating and Perforation Gunshot and Stab Wounds of the Abdomen with Report of Cases. John Y. Brown.
16 *Retrouterine Hematocele. W. C. Gayler.
17 Multiple Neuritis: A Case Resulting Probably from Morphin Toxemia. Frank H. Stephenson.
18 *Guides to the Prognosis in Epilepsy, with Remarks on the Curability of the Disease, Including Reports of 34 Cases. (Concluded.) William P. Spratling.
19 *Ergot in Typhoid Fever. Alfred T. Livingston
20 Laboratory Diagnosis. (Concluded.) M. P. Overholser.
21 *Are the Antidotal Effects of Alcohol, Glycerin, etc., on Carbolic Acid Chemical or Physical? Philip Asher.

14. **Ureteral Catheterism.**—Van Der Poel describes the

method of ureteral catheterism, which he does not consider as dangerous except in cases of bladder infection. As compared with other methods he expresses its advantages as follows:

1. The cystoscope is more easy of introduction than are the separators or segregators, is less painful during the bladder manipulations and much less so during the collection of the urines. Hence, as a rule:

2. With ureteral catheterism we can collect the urines during as long a time as may be thought necessary, the patient not requiring any supervision.

3. A cystoscopic examination of the bladder can be made at the same time, which, in some cases, is useful, in others, indispensable.

4. We are much more certain of the exact results, especially when the two urines are of a similar character, whether clear, bloody or purulent (Albarran); and

5. It is the only method by which we are fairly certain that there is no bladder contamination.

15. *Penetrating* **Wounds of the Abdomen.**—Brown believes in prompt operation in any wound of the abdomen that may be penetrating to its contents. He does not consider the hydrogen gas test of Senn safe. In the majority of cases he advises a median abdominal incision, above or below the umbilicus, personally preferring rather long ones so as to systematically go over the viscera, which he examines in the following manner: The stomach fore and aft, the liver and spleen. Beginning at the angle of Tritz, the small intestine is followed to ileocecal valve; the ascending, transverse and descending colon and the sigmoid flexure are then examined. A thorough examination of this sort precludes the possibility of overlooking injuries to peritoneal contents. Injuries to vessels of the mesentery and omentum can readily be controlled by ligature. Hemorrhage from the liver, pancreas and spleen are harder to manage, but a properly applied gauze tampon should be used. Brown is a great believer in the virtue of irrigation and drainage in the treatment of wounds of this character, using physiologic salt solution in large quantities. He drains with glass, the tube being placed in the pelvis through a stab wound above the pubis, and he thinks it is necessary in all cases where there has been a solution of continuity of the bowel. The patient is placed in an exaggerated Fowler's position. If a gauze tampon is used he invariably endeavors to bring the gauze through the wound of entrance so that the laparotomy wound can be completely closed. Care is insisted on in the closure of the wound. A properly applied over-and-over silkworm-gut suture meets all the indications, though if the patient's condition is good, a buried suture may be used. In resection of the bowel he uses a Murphy button, as nothing else is so quick, and the union, as he has shown, is superior to any known method of suture. A series of cases of wounds of the liver, intestine and pancreas is reported. Of the 9 intestinal wounds, 6 recovered, and of the 3 that died 1 was due to shock and 1 had a general peritonitis, but the third patient, he thinks, ought to have been saved. Of the 5 cases of liver wounds, 4 recovered and 1 died three hours after the operation from shock, the result of hemorrhage. In the pancreatic case the patient recovered. To these he adds 8 cases where laparotomy was performed and no injury to the viscera found, making a total of 23 cases, with 19 recoveries and 4 deaths.

16. **Retrouterine Hematocele.**—Gayler gives the results in Döderlein's clinic in the management of these conditions, having re-examined 36 cases. In 18 a laparotomy had been performed; 1 patient died of sepsis, 15 were absolutely well at the end of four years, and 2 still complained of pain and discomfort. The average time of recovery in the 15 was six weeks. The three who had been operated on by way of the vagina were absolutely well. Conservative treatment consisted in rest in bed, liquid diet and application of warmth to the abdomen. Only 13 of the 15 thus treated responded to the request for re-examination. Eleven were free from their complaints and showed no abnormities on internal examination. He thinks these observations teach that a patient should be given in case of hematocele three weeks of conservative treatment in an institution where surgical interference is always conveniently at hand. Of course, in interrupted extra-uterine pregnancy or violent interrupted pregnancy, operation should be performed at once.

18. **Epilepsy.**—Spratling concludes his paper beginning with a report of cases and finishing with a discussion of the same. He holds that the duration of the disease has much to do with the prognosis. Cases that have been epileptic from early life are less hopeful than those originating later. The mental state also has considerable to do with the prognosis, though in many cases it was found temporarily subverted by excessive bromid medication before admission. The length of time during which patients should be free from attacks before being pronounced cured is variously estimated; he does not see how an inflexible rule can be laid down. The peculiarities of the individual cases must be studied and the period fixed in each.

19. **Ergot in Typhoid.**—Livingston believes that the one element that is the fundamental factor of the fatal conditions is insufficient tone of some area or areas of the vital or unstriped muscular fiber of the muscular coats of the blood vessels, lymphatics and alimentary canal. The sooner this tissue is put on the highest plane of tone the better. He has demonstrated, he thinks, that ergot possesses the function of stimulating, toning and strengthening of whatever unstriped fiber is weak, relaxed, stretched or parályzed, the blood distribution is equalized, and the overworked heart has not to pump against congested peripheral areas. He uses a dram of the solid extract of ergot dissolved in an ounce of sterile distilled (cooled) water, and after filtering the solution, adds two minims of chloroform. Absolute asepsis must be insisted on and the dose to be given hypodermically is ½ to 1 dram from two to six times a day or oftener as indicated in the individual case. He considers this the most important single medicinal agent in the treatment of the disease.

21. **Carbolic Acid Antidotes.**—Asher reports experiments made to determine whether the action of alcohol, glycerin, etc., is chemical or otherwise. He summarizes his results by saying: 1. The physical or chemical properties of the various factors used were never affected, therefore chemical change never occurred. 2. The antidotal power of alcohol and glycerin depends largely on the dilution induced. We know that a drop of sulphuric acid will produce escharotic properties at once while the same quantity in diluted state fails. In addition to that of dilution, alcohol possesses dehydrating and astringent properties, which prevent the absorption of carbolic acid by the tissues.

Medical News, New York.

April, 16.

22 *Ulcer and Cancer of the Stomach from a Surgical Standpoint. William J. Mayo.
23 *Otitis Media in Croupous Pneumonia; with the Report of a Case of Acute Suppurative Otitis Media Preceding the Pneumonia. Nathan G. Ward.
24 *Hepatectomy for Tuberculoma of the Liver. Joseph Ransohoff.
25 *Relationship Existing Between Ophthalmology and Otology and Dentistry. Frank Allport.
26 *Historical Sketch of Some of the So-called Cures for Consumption; with a Few Notes on Later-day Treatment. (Continued.) J. Edward Stubbert.
27 *Hysteria and Organic Disease. William B. Noyes and Richard C. Newton.
28 *Varieties of Pulmonary Tuberculosis. Jay Perkins.
29 *Poisoning by the White of an Egg. J. R. Clemens.

22. **Gastric Ulcer and Cancer.**—Mayo's article seems to cover in substance the same ground as that reviewed in The Journal of March 12, p. 735, ¶42.

23. **Otitis Media and Pneumonia.**—The complication of otitis with pneumonia is not infrequent, occurring more often than it is recognized, according to Ward. The otitis may exist prior to the pneumonia, and the otitis as a rule is made worse, or an apparently quiescent or healed otitis may be revealed by the pneumonia attack, as the pneumococcus is far more likely to attack a previously damaged spot as the one of least resistance. There may be a simultaneous affection of both ear and lung. In a few cases the ear symptoms are manifested first, as in the one reported by the author. Otitis may be secondary to the pneumonia, and this relation of the ear affection to the systemic condition is the most frequent. The pneumococcus brought up by coughing enters the naso-pharynx, gains access to the eustachian tube, extends by contiguity of tissue to the middle ear and starts up suppuration. This usually occurs when the patient is dull or delirious and may escape the notice of the physician who attributes the symptoms of cerebral irritation and septic infection to the pneumonia. In one of Stacey Wilson's cases the otitis was revealed at the

autopsy, not being previously suspected, and the pathologic changes showed suppurative processes that had evidently existed a much longer time than the pneumonia itself. In the case reported no bacteriologic examination was made, but the author considers that the clinical evidence is in favor of a pneumococcus infection.

24. **Tuberculoma of the Liver.**—Ransohoff reports a case with necropsy and discusses the technic of hepatectomy in such conditions. He thinks that the experimentally demonstrated means of arresting hemorrhage by tying the hepatic veins by transfixion sutures, together with gauze packing, seems an ideal one where applicable.

25. **The Relations Between Ophthalmology, Otology and Dentistry.**—Allport points out the relationships that may exist between oral and dental and ophthalmic and otologic conditions. He does not believe in or is skeptical of the so-called reflex ocular or aural disease of oral origin, where intense purulent or inflammatory conditions exist in the eye and ear. Such, he holds, must be produced either by the migration of infectious micro-organisms or by the extension of the inflammation by periosteal or mucous tissue. He would advise the establishment in all free dispensaries of a dental department where proper oral therapeutics might be administered, and notes with satisfaction a resolution by the National Dental Association in favor of medical colleges having lectureships on oral hygiene, prophylaxis, etc.

26. **Tuberculosis.**—Stubbert finishes his article on the treatment of tuberculosis, and summarizes that with our present knowledge and clinical experience in the treatment of the disease, diet, hygiene, fresh air, etc., are universally accepted as the foundation of all scientific methods, though these alone are insufficient and must be supplemented by symptomatic treatment in the way of antiseptics, tonics and surgical interference when necessary. He thinks that in the next three years we will see a notable advance in immunization and the stimulating effects of light. The physician in the meantime who would prescribe climate alone is as culpable as he who would ignore climate, diet and hygiene for medicinal or other treatment.

27. **Hysteria and Organic Disease.**—Noyes and Newton notice especially the subject of hysteria and the hysterogenic tendency of various disorders. Ultimately, of course, advanced cases of hysteria must develop organic disease. The first physical change may be looked for in metabolism, especially in the urinary secretion. They report cases in which there was albuminuria, granular and hyaline casts in the urine, but the supposition that a nephritis was the underlying cause of the whole train of hysterical symptoms can not be maintained. Another case is reported in which there was apparent kidney involvement, but the patient was fairly scolded out of his disorder. They say it seems reasonable enough to conclude that insignificant trouble in the kidney or anywhere else may, in a neurotic subject, by concentrating his thoughts to that region, produce puzzling hysterical-organic symptoms.

28. **Tuberculosis.**—Perkins recognizes six varieties of pulmonary tuberculosis: 1. A localized fibrous form, which is the most favorable and can stand the most vigorous treatment, with a tendency to fibrous isolation favoring recovery. 2. A fibrocaseous form, when arrest takes place after a considerable portion of lung substance has become affected. With proper care the patient may live years though with a lessened vitality. 3. A fibroid phthisis running a chronic course, found chiefly among persons exposed to the inhalation of irritating dust. 4. Phthisis florida which progresses with only temporary abatement and the patient dies of toxemia without the disease spreading to other organs. Closely connected with this is the fifth type described by Biggs as chronic parenchymatous pulmonary tuberculosis, corresponding with Powell's chronic tuberculous phthisis. They are the cases that are most frequently sent away from home to die. The onset is insidious and there may be little or no cough or expectoration, and, unless late in the disease, the physical signs are not always reliable. A prominent characteristic is the marked general symptoms as compared with the physical signs. While less rapid, it is hardly less fatal than phthisis florida. 6. The acute miliary form, overwhelming the system before the stage of dullness or mucous râles occurs.

29. **Poisoning by the White of Egg.**—Clemens reports the case of a child seized with acute urticaria, edema of the feet and collapse and symptoms of acute gastric irritation, the cause of which was at first unrecognized, but later was found to be the ingestion of food containing the white of egg, custard, ginger-bread, etc. The treatment consisted in cleaning out the gastrointestinal tract with oil, followed by full doses of calomel and later by salol and magnesium sulphate. In each case the attacks were preceded by protracted intestinal indigestion, but all the attacks were without incubation periods and must, therefore, have been intoxications. The family history is negative as regards such idiosyncrasy.

Medical Record, New York.

April 16.

30 *The Tuberculosis Hospitals of the New York State Hospitals for the Insane. Frederick Peterson and G. L. Heins.
31 *The Deficient Urea-excretion in Gout and Lithemia. Richard K. MacAlester.
32 *Operation for Congenital Saddle-nose by Introduction of a Celluloid Plate. Joseph Wiener, Jr.
33 The Bladder in Health and Disease, as Demonstrated by the Cystoscope. Henry G. Spooner.

30. **Tuberculosis Hospitals.**—Peterson and Heins describe and illustrate the hospitals that are being built for tuberculous cases at the asylums in Binghamton, Middletown and Ogdensburg, New York.

31. **Urea Deficiency in Gout and Lithemia.**—MacAlester's paper describes the findings in gout and lithemia as regards the elimination of urea and uric acid, determining the former by Doremus' instrument and the latter by Heintz' method. The urinalyses of 20 cases are tabulated, showing a decided deficiency. He considers the cause of this urea deficiency as primarily due to hepatic disorders, and that it is of considerable importance from a diagnostic and prognostic standpoint. In chronic rheumatism the results of urinary analysis do not appear to deviate materially from the normal. His summary is given in the following:

1. Persistent deficient urea-excretion is always present in and characteristic of chronic gouty conditions.
2. The total urea output in gout is considerably lower than that found in chronic Bright's disease, about two-thirds of the amount in other miscellaneous chronic disorders, and only about three-fifths of the quantity excreted in health.
3. Deficient urea-excretion is an important factor in the differential diagnosis between gouty and chronic rheumatic troubles, and between lithemia and certain nervous conditions dependent on other causes.
4. It is not present in chronic rheumatic conditions.
5. It points to perverted hepatic metabolism, and lends color to the Murchison theory of gout, there being in the cases discussed no clinical evidence of kidney trouble in support of the renal theory.
6. A diminished uric-acid excretion is to a certain degree commensurate with that of urea.
7. Gout, goutiness and lithemia are of the same origin, and but modifications of the same disorder.
8. Chronic gouty conditions are in general more amenable to treatment, especially to balneotherapy, than chronic rheumatic affections.

32. **Saddle-Nose.**—Wiener's case was one of congenital saddle-nose in which he dissected away the skin and placed a molded celluloid plate underneath, taking care to avoid undue tension. There was a little swelling for a week or ten days, but the wound healed readily and the ultimate result was better, he says, than that shown in the illustration. He thinks the method is worthy of trial.

Cincinnati Lancet-Clinic.

April 16.

34 Nevi: A Clinical Lecture. Charles C. Miller.
35 Puerperal Septicemia. N. I. Fraid.
36 Epilepsy—Report of a Case. Earl Harlan.

St. Louis Medical Review.

April 16.

37 The History of Bacteriology. B. M. Bolton.

Northwestern Lancet, Minneapolis.

April 1.

38 Flat-foot or Splay foot, pes Valgus. K. Hoegh.
39 Note on Tyrotoxicon Poisoning. Hubert C. Carel.
40 Ventral Hernia; Its Causes, Prevention and Cure. James E. Moore.

Journal of Nervous and Mental Disease, N. Y.

April.

41 *Report of a Case of Erythromelalgia with the Postmortem Findings. Arthur S. Hamilton.

source of irritation that has produced them is removed they more or less completely disappear. Tympanites, through increasing intra-abdominal pressure without peristalsis, and even so-called intestinal paralysis are also means to the same conservative end. We should, therefore, be careful about antagonizing these conservative agencies during an acute stage by untimely operation or the giving of food or cathartics. Ordinarily, an interval operation will be needed for the removal of the source of infection and such are almost uniformly successful, attended with a very low mortality. This, of course, does not apply to first-day operations in acute peritoneal infections, the necessity of which is unquestioned.

71. **Formaldehyd in the Urine.**—Kenney reaches the following conclusions from his investigation: Formaldehyd as an artificial ingredient to the urine will lead to deceptive urinalysis, making the urine appear albuminous when it is not, and preventing the typical reaction when albumin is present. Introna's test, namely, the use of formaldehyd in albuminous urine as a reagent, is questioned since the effect of formaldehyd on negative urine is the same, though to a more marked degree than that on albumin in solution, the difference in the color and density of the precipitate being immaterial in Kenney's opinion. The therapeutic use of urotropin is a matter worthy of study from the point of view of possible production of pseudo-albuminuria.

72. **Divulsion of the Sphincter for Constipation.**—Tuxbury holds that in certain cases of constipation the constant irritation of the retained feces causes a hyperintensified action of the external sphincter which is beyond the power of the will to control. In such cases gradual divulsion of the sphincter is advisable, and he reports a case to demonstrate its efficacy.

Archives of Otology, New York.

February.

73 *Osteomyelitis of the Temporal and Adjacent Bodies of the Skull as a Sequel of Otitis Media Suppurativa. Charles W. Richardson.
74 *Tubercle like Bacilli in the Discharge of Chronic Purulent Ottitis. A. De Simoni.
75 Contribution on Otogenous Diseases of the Brain, Meninges and Venous Sinuses. Dr. Suckstorff and Dr. Henrici.
76 Primary Epithelioma of the Temporal Bone. Dr. Sturm.
77 Tuberculosis of the Ear Ending in Recovery. I. Hegetschweiler.
78 Pathology of Deaf-mutism. Report of a Case of Acquired Deaf-mutism with Obliteration of Tympanum, Aditus and Antrum. Herman Hölzel.

73. **Osteomyelitis of the Skull After Otitis.**—Richardson reports and discusses a case in which there was an osteomyelitic condition involving the temporal bone. It was treated by exposure and curetting with success. He holds that this disorder is probably more common than has been reported to date, the operator not appreciating the character of the invasion, and that cases have been lost because they were considered only a severe type of mastoiditis running an atypical course. In his case he anticipates the objection to the term osteomyelitis by saying that there was no question but what it was clinically and anatomically different from typical mastoiditis, extending far beyond the confines of the mastoid and attended with profound general sepsis from the onset. As it extended rapidly and was not limited by sutural borders, and corresponded to all the symptoms of acute primary osteomyelitis, no other name would be correct.

74. **The Acid-fast Bacilli in Otitis.**—De Simoni reports a case where a bacillus morphologically resembling to some extent the tubercle bacillus, was found abundantly in a case of otitis. It was straight or only slightly curved; the bacillus looked longer and more slender than the common tubercle bacillus, particularly in liquid media and recent cultures. It stained with the ordinary aniline dyes quite like tubercle bacilli, and was not decolorized by Gram. It was non-pathogenic to guinea-pigs and rabbits.

Canada Lancet, Toronto.

April.

79 *Experimental Production of Antitoxic Sera and Their Value in the Treatment of Tuberculosis. Albert G. Nicholls.
80 Etiology, Diagnosis and Medical Treatment of Gallstones. W. P. Caven.
81 *Relative Prevalence of Contagious Diseases in Children of School Age. P. H. Bryce.
82 *Study of Immunity in Variola and Vaccinia. C. A. Hodgetts.

79. **Antitoxic Sera in Tuberculosis.**—An experimental study of antitoxic sera in tuberculosis is reported by Nicholls. He used goats for producing his serum, experimenting on rabbits and guinea-pigs. From the autopsy findings in at least one of his experiments and in the effect on rabbits it would seem that the treatment had some restraining influence on tuberculous processes, not powerful enough, however, to overcome it. He thinks that in view of all the facts known, it must be admitted that it is possible to prepare a serum that is to a certain extent antitoxic toward tuberculosis, but the evidence that the serum so far prepared is curative is very unconvincing to him. Serum may be antitoxic only or it may be germicidal, and in tuberculosis we need both qualities. Short of killing the germs *in situ* he does not think we will achieve success.

81. **Diseases of School Children.**—Bryce discusses the incidence of disease in school children, especially scarlet fever and diphtheria. He says the more effective methods adopted in Ottawa in 1903 have caused a reduction of 50 per cent. in the cases of scarlatina and of 85 per cent. of deaths; 41 per cent. in diphtheria with 54 per cent. of deaths. He thinks there should be a general conviction that disease is liable to be disseminated among school children and that an enormous saving of sickness and mortality is possible if the public is properly educated to action in the matter.

82. **Smallpox.**—Hodgetts holds that the immunity to smallpox after vaccination and more especially after mild attacks of variola is only relative and that there is a danger of serious consequences if those who have suffered from a mild epidemic, such as lately existed, should be left without further protection. We calculate the immunity ordinarily from some former experiènce when the disease may have been of a much severer type.

Medical Review of Reviews, New York.

March 25.

83 *The Necessity of a Knowledge Among General Practitioners of the Diagnosis and Treatment of Glaucoma. D. B. St. John Roosa.
84 Complications of Chronic Suppuration of the Middle Ear—Etiology and Diagnosis. T. Passmore Berens.

83. **Glaucoma.**—Roosa points out the advantages of an acquaintance with this condition on the part of the general practitioner, especially in treating eye diseases, to avoid mistakes. An error in diagnosis may lead to a complete loss of sight and a remaining eyeball which is a constant source of discomfort and pain, and sooner or later both eyeballs may be affected. The practitioner should learn to recognize intense, neuralgic pain, circumcorneal redness, anesthesia of the cornea, great failure in vision, general turbid look of the front of the eye, and, above all, the hardness of the eyeball as compared with the normal eyeball. In some cases the diagnosis must be reversed on account of the possibility of intraocular tumor, but aside from the increased tension the pupil will show a reflex or there will be a lateral enlargement of the globe. He prefers eserin as the treatment for these cases, using castor oil as a vehicle. If afterward fomentations are used for not less than twenty minutes, the pain is much relieved. The strength of the eserin may be up to 2 grains to the ounce, or even more. Illustrative cases are reported.

Archives of Pediatrics, New York.

April.

85 Chronic Diffuse Nephritis in a Four-year-old Boy with a Rudimentary Kidney. A. C. Cotton.
86 *Etiology of Rachitis. Rowland G. Freeman.
87 *Value of the Incubation Period in the Diagnosis of the Acute Exanthemata of Childhood. Alfred Hand, Jr.
88 **Necessity for Supplementary* Measures After the Removal of Adenoids. Percy Fridenberg.

86. **Rachitis.**—Freeman, from his study of the subject and the literature, concludes that from animal experiments it would seem to be indicated that unsuitable food can produce rachitis, and that possibly certain bacteria or intestinal toxins may have the same result. The clinical observations are too elaborate for possible deduction, but are interesting inasmuch as they show less rachitis in tenement than in institution children fed on modified milk, and the greatest amount of rachitis in institution babies fed on breast milk with auxiliary feedings of condensed milk.

87. **Incubation Period of Acute Exanthemata.**—The incubation period of scarlatina, measles and rötheln are discussed by Hand, who finds a wide difference of opinion in all cases excepting in measles. He reports the history of a family epidemic in which the incubation period of scarlet fever must have been thirteen to seventeen days, or much longer than is usually credited. He thinks much harm might have been done if the disease had not been sufficiently severe to have been positively recognized and had been called rötheln. In regard to measles, the incubation period may often be of value in small family epidemics, helping to tell when other members will develop the disease. Beyond this it has little value.

88. **Adenoids.**—One aspect of the study of adenoids has, Fridenberg says, received too little attention from the profession, namely, the after-treatment and the need of supplementary measures for assuring the operative results, producing the habit of nasal respiration and correcting structural deformities due to abnormal functioning. The removal of adenoids does away with the obstruction, but does not insure nasal respiration, and training of the child is required. After the nasal respiration during waking hours has been established there will be no mouth breathing during sleep, and he suggests indulgence in the habit of chewing gum for a period to assist in the reflex mechanism of keeping the mouth shut. It is not difficult to break the habit after its utility is past. He mentions a mechanical splint for keeping the mouth shut during sleep, thus aiding the treatment. The second detail to which the after-treatment should be directed is the faulty arrangement and crowding of the teeth, the malformation of the alveolar arch and the underdevelopment of the jaw and chin. Removal of adenoids in itself will not cure this, and he believes in the intelligent dental surgeon's intervention in such cases.

Journal of the Michigan State Medical Society, Detroit.

April.

89 The Newer Methods of Detecting Renal Insufficiency—Cryoscopy and the Phloridzin Test. Benjamin R. Schenck.
90 Eclampsia. Charles L. Bonifield.
91 Some Interesting Developments in Ophthalmology During the Past Year. Walter R. Parker.
92 Medical Reorganization. Edward J. Witt.
93 *What Is to Become of the Medical Graduate? John L. Irwin.
94 *The Use of Large Probes in the Treatment of Stricture of the Nasal Duct. R. W. Gillman.

93. **What Is to Become of the Medical Graduate?**—Irwin uses the state board of health figures to show the decrease in the prevalence of disease and of general morbidity and mortality. He figures a total falling off in sickness of 19 per cent., and from this deduces that the income of doctors is necessarily decreasing. Moreover, certain diseases, such as smallpox and scarlet fever, are cared for in most communities by public appropriation. The other disorders on which the general practitioner depends for the bulk of his practice have fallen during the past two years 47 per cent. below the average of the preceding ten years. The number of Michigan physicians is put down as 4,400, and there is an annual increase from the output of graduates from six medical colleges in the state and from incomers from outside the state. He says: "Bearing in mind the altruistic effect of the sanitarian who reduces the percentage of disease, and the egotistic effort of the medical college professor who lures the unsuspecting freshman to swell the ranks of the noble profession of medicine, and the confiding optimism of the said freshman who, after graduation, sits back and waits for the problematic increase in a sick rate which the sanitarian is paid to reduce, and from which his former professor expects to derive sole benefit, the question is: 'What is to become of the medical graduate?' "

94. **Stricture of the Nasal Duct.**—Gillman recommends the use of large probes after slitting the upper or lower canaliculus. He then uses a No. 5 probe and rarely fails to make the passage direct. At the second séance a No. 7 or even a No. 8 probe may usually be readily passed, gradually increasing until a No. 14 or 16 is reached, when the interval of time between the probings is gradually increased to three or four days, a week or two weeks, a month and even longer periods. The probes are allowed to remain *in situ* from ten minutes to half an hour at each sitting. Since adopting the larger probes he has discarded the routine syringing of the sac in cases of dacryocystitis, but orders a collyrium composed of boric acid and zinc sulphate dropped into the affected eye twice daily. Any internal disease of the nose must, of course, be treated. He thinks if this course were followed many operations such as extirpation of the lachrymal sac or gland would be avoided.

New Orleans Medical and Surgical Journal.

April.

95 *Notes and Observations on Uncinariasis in Porto Rico. (Concluded.) Bailey K. Ashford and W. W. King.
96 The Value of the Leucocyte Count as an Aid to Diagnosis and Prognosis in Appendicitis. J. B. Guthrie.
97 A Suggestion in Operations for Hypospadias and a Method to Prevent the Closure of the Nares in Rhinoplasty. E. Denegre Martin.

95. **Uncinariasis in Porto Rico.**—Ashford and King's article gives a very full account of the conditions in Porto Rico and the methods of treatment which were adopted there. The practice advised is the giving of a full dose of Epsom salts, following it with 4 grams of thymol, avoiding any solvent of this drug. The bowels having moved well, he keeps the patient in bed, and at 7 a. m., withholding breakfast, administers 2 grams of thymol powder, in 6 cachets. He repeats the dose at 8 a. m., and at 11 or 12 gives another dose of Epsom salts, which is a physiologic antidote and effectually stops absorption. The thymol benumbs or kills the parasites and the Epsom salts carry them off. He finds for the after-treatment that Blaud's pills are as good as any preparation. The complications are treated as they arise. The prophylaxis of the condition is dependent on the sanitary arrangement. The use of latrines would be a great help, and he thinks plowing the ground at fortnightly intervals would kill off a great many of the parasites. Cutting down the underbrush and firing the grass would be a good thing. The treatment of as many cases as possible will reduce the danger.

Medical Fortnightly, St. Louis.

March 25.

98 The Diagnosis of Abdominal Cancer Before Tumor Is Apparent. Frank G. Nifong.
99 Clinical Report of a Case of Rabies. A. W. Schreiber.
100 Case of Rabies. Fred C. Cave.
101 Pathological Findings in Two Fatal Cases of Rabies. R. B. H. Gradwohl.
102 Rabies. Carl Fisch.

April 11.

103 *The Value of a Fecal Fistula in the Treatment of Typhoid Perforation. Willard Bartlett.
104 Forensic Medicine, or Where Professions Unite in the Cause of Truth and Justice. Owen P. Thompson.
105 Vaccination, Its Application, Benefits and Disadvantages. Wm. F. Barclay.

103. **Typhoid Perforation.**—Escher's method of making a temporary fecal fistula in these cases is strongly advocated by Bartlett, who reports a case in which the method was employed with success. Of course, hernia is likely to ensue, but that is insignificant as compared with other possible consequences.

American Practitioner and News, Louisville, Ky.

March 15.

106 Pneumonia and Its Treatment. S. P. Oldham.
107 Ludwig's Angina. W. O. Humphrey.

Pennsylvania Medical Journal, Pittsburg.

March.

108 Practical Treatment of Pulmonary Tuberculosis. Henry Marion Neale.
109 Some of the More Infrequent Causes of Obstruction of the Common Bile Duct. Levi Jay Hammond.

American Medical Compend, Toledo, Ohio.

April.

110 Stricture of the Esophagus, with Reports of Cases. Operation Through Stomach (Dr. Abbe's Method). Wm. J. Gillette.
111 Typhoid Fever. Wm. A. Dickey.
112 Surgical Clinic at Metropolitan Hospital, New York. Thomas H. Manley.
113 Treatment of Sciatica with Nuclein. J. C. Tritch.
114 Chronic Nasal Catarrh; a Simple and Effective Treatment. G. A. Gilbert.
115 The Mesogastrium. (Continued.) Byron Robinson.

Canadian Practitioner and Review, Toronto.

April.

116 Treatment of Epithelioma with X-ray: Douglass W. Montgomery.
117 Gastroenterostomy, with Report of Cases. Ingersoll Olmsted.
118 Report of Case of Cesarean Section. Fred C. Stevenson.
119 Serum and Septicemia. F. Arnold Clarkson.

Vermont Medical Monthly, Burlington.

February 25.

120 Etiology and Pathology of Pneumonia. Frank C. Phelps.
121 Clinical History and Diagnosis of Pneumonia. O. C. Baker.
122 Treatment of Pneumonia. A. E. Bailey.

Medical Times, New York.

April.

123 Immoderate Physical Exertion a Factor in Etiology. Theo. J. Jacquemin.
124 Remarks on the Pancreatic Duct from Corrosion and X-ray Anatomy. Byron Robinson.
125 Corroborative Method of Urinary Analysis. A. L. Benedict.
126 Spring, Autumnal Catarrh and Asthma. G. R. Johnson.
127 Some Remarks on Pneumonia, with Consideration of a Case of the Acute Tubercular Form. Louis Faugeres Bishop.
128 Maternal Impressions. J. W. Coolidge.
129 Famous Operations in Surgery as Described by Their Originators. Wm. Wormley.

Journal of Advanced Therapeutics, New York.

April.

130 Currents of High Frequency; Apparatus and Therapeutic Uses. F. Goodwin Du Bose.
131 *Plea for Electro-therapeutics Proper. (Continued.) W. J. Herdman.
132 New System of High Frequency Therapeutics. (Continued.) Frederic F. Strong.
133 Methods Used in Radiography. Russell H. Boggs.
134 Radiant Frequency Transformation or Fluorescence. Margaret A. Cleaves.
135 Physio-pathologic Action of High-frequency and High-tension Currents on the Normal Skin. Histologic Researches. (Continued.) G. Areinzo and S. Fabrozzi.

131. See abstract in The Journal, xli, p. 978.

Kansas City Medical Index-Lancet.

April.

136 Medical Organization. A. R. Snyder.
137 Placenta Previa. David Gardner.
138 Mind and Its Dissolution. T. F. Lockwood.
139 Gastroenteritis in Children. J. Henry Barnes.

Louisville Monthly Journal of Medicine and Surgery.

April.

140 The Perineum. C. Skinner.
141 Tetanus. W. O. Roberts.
142 Surgery of the Pancreas. John R. Wathen.
143 Congenital Dislocation of the Hip. James B. Bullitt.

Journal of the Kansas Medical Society, Topeka.

April.

144 Loco Once More. L. E. Sayre.
145 Education of the Public in Medicine. George Howard Hoxie.
146 The Degeneracy of Therapeutics. J. P. Stewart.
147 McReynolds' Operation for Pterygium. George A. Hamman.
148 Conventional Quarantine of Scarlatina. H. L. Chambers.
149 Case of Acute Bilateral Facial Palsy with Complications. (Continued.) S. Grover Burnett.

Carolina Medical Journal.

March.

150 Painless Circumcision. W. Hosea Moss.
151 The High Operation for Varicocele. H. A. Royster.
152 Foreign Bodies Under the Eyelids. Foreign Bodies in the Cornea. W. H. Wakefield.

International Journal of Surgery, New York.

April.

153 *The Value of Fecal Fistula in the Treatment of Typhoid Perforation. Willard Bartlett.
154 *Significance and Management of Paralysis of the Bowel. George S. Brown.
155 New Method of Operation in Cases of Spina Bifida. Eugene Wason.
156 The Surgical Assistant. Operations In and About the Vagina. (Continued.) Walter M. Brickner.

153. See also ¶103 above.

154. See abstract in The Journal of January 16, p. 190.

Atlanta Journal-Record of Medicine.

April.

157 The Imperfect Development of the Uterus. R. R. Kime.
158 Toxic Dermatoses. Bernard Wolff.
159 Cases Illustrating Plastic Surgery of the Face. M. B. Hutchins.

Post-Graduate, New York.

April.

160 Malingering, with Report of a Case. J. Seymour Emans.
161 Peritonitis. Its Importance to the General Practitioner and to the Surgeon. Forbes Hawkes.
162 Misokainismus, the Deeply Rooted Inclination of Mankind to Combat New Ideas. A. Rose.

Southern Practitioner, Nashville, Tenn.

April.

163 Cancer of the Uterus and the Physician's Duty. M. C. McCannon.
164 Should Embryotomy Be Done on the Living Fetus? Geo. C. Trawick.
165 Stammering and Stuttering. James M. Brown.

[**Anopheles Punctipennis, Not Maculipennis.**—In abstracting Hirshberg's paper from the *Bulletin of Johns Hopkins Hospital* last week we inadvertently said *maculipennis* for *punctipennis*, which reverses the author's meaning.]

FOREIGN.

Titles marked with an asterisk (*) are abstracted below. Clinical lectures, single case reports and trials of new drugs and artificial foods are omitted unless of exceptional general interest.

British Medical Journal, London.

April 9.

1 Some Experiments on Enterica, Scarlet Fever and Measles in the Chimpanzee. Albert S. Grunbaum.
2 *Experimental Nephritis Followed by Decapsulation of the Kidney. I. Walker Hall and G. Herxheimer.
3 Some Further Observations on the Life History of Filaria Immitis, Leidy. Thomas L. Bancroft.
4 *Digestion and Absorption of Hemoglobin. W. D. Halliburton.
5 *Notes on Recent Cancer Mortality in the Thames Valley. Alexander Urquhart.
6 *Action of the Blood Serum from Cases of Acute Mental Disorder on B. Coli Communis. Alice V. Johnson and Edwin Goodall.
7 Cases of Lateral Sinus Pyemia. William Sheen.
8 Physical Development of the London Schoolboy; 1,890 Examinations. Leslie Thorne Thorne.
9 Epidemic Sore Throat from Suppurative Mammitis in Cows. Robert French.
10 Papilliferous Cyst from an Axillary Sudoriparous Gland. H. Betham Robinson.
11 Traumatic Rupture of the Small Intestine. R. Lawford Knaggs.
12 Note on Perineal Litholapaxy (Keith's Modification). A. Hooton.

2. **Decapsulation of the Kidney.**—Hall and Herxheimer's experiments were performed on rabbits and dogs. Experiments on healthy dogs were also communicated to them by Harold Johnson. They describe the methods and remark that while they can not produce an interstitial nephritis and reproduce the actual condition observed in the human subject, there is no good anatomic basis for the operation in degenerative nephritis. If the changes are at all analogous in the human subject, they should imagine that the laceration, hemorrhage and the new formation of the capsule would rather tend to accelerate the interstitial inflammation; while in the event even of any concomitant arteriosclerosis there would be no possibility of much vascular anastomosis of replacement of the channels ruptured. But if there is no anatomic basis for the operation there may be another explanation of the rapid flow of urine—the increased excretion of urea and the disappearance of albumin in cases which have been observed to follow decapsulation. By some, the effects are attributed to relief of the congestion, but in their experiments intense hyperemia persisted after the capsule had re-formed. The explanation suggested by Pel, Jaboulay and others that the improvement is due to the action of the sympathetic ganglion raises the question as to the necessity for the entire denudation of the renal capsule. The authors ask if renal puncture or one longitudinal and several transverse incisions would not be a better method. They can not give any experimental evidence on this point, and refer to favorable statistics of Guiteras, Suker and others, but say that they are minimized by several considerations: 1, the limitation of the operation to the later stages of the disease; 2, the exact stages and extent of chronic nephritis do not permit of accurate diagnosis; 3, chronic nephritis is characterized by acute exacerbations and frequent remissions, though its anatomic course is generally progressive. Their general opinion as reflected in their comments is not exactly favorable to the operation. They call attention to the fact that such operators as Israel, Nicolayson and others have abandoned the method. It is, of course, a matter of common knowledge that the simpler renal puncture relieves tension and promotes renal function, so perhaps the description of the changes observed after decapsulation may emphasize the probability of rapid local reparation when temporary obstruction is removed, and this suggests earlier surgical treatment of postfebrile and acute renal manifestations which, when unrelieved, are often fatal.

4. **Digestion and Absorption of Hemoglobin.**—The conclusions reached by Halliburton as to the absorption of hemoglobin are in substance as follows: 1. The administration of iron in the form of powdered hemoglobin to rats causes an increase in the number of their red blood corpuscles and the amount of hemoglobin in the blood. 2. There is every reason to believe that hemoglobin is actually absorbed. The intensity of the ammonium sulphid reaction is much greater than in animals kept on an iron poor diet. The main situation for absorption, as judged by this reaction, is the extreme pyloric end of the

stomach and the first few inches of the duodenum. The spleen appears to be the principal organ for storage. 3. Hemoglobin in the stomach is converted into acid hematin. This constitutes the "coffee grounds" in the vomit of hematemesis. Acid hematin after it is formed, is slowly precipitated, and is indiffusible through parchment paper. This will account for the absorption in the first part of the duodenum. Lower down where the reaction is again acid, the absorption ceases. In many animals, however, the reaction of the intestinal contents becomes alkaline owing to the ammonia formation in the large bowel, but in the rat he found that the contents of the cecum and of the first part of the colon were still acid. Alkalinity does not occur until the lower portion of the colon is reached.

5. **Cancer Mortality in the Thames Valley.**—The statistics of all the counties showed a cancer death rate higher than that of England as a whole. There is an increase in the later decennia over the former of between 1 and 2 per cent., and, as a rule, a larger increase in the riparial districts than in the non-riparial. The figures are compared with the total number of deaths from all causes by a method which can give only approximately accurate results. The conditions in regard to age and sex distribution in the main districts vary but slowly, and there is little liability to error in comparing the cancer death rates of the same district or town at the different periods. The statistics seem to justify the conclusion that the Thames Valley has a relatively high mortality from cancer and the uniformly high rate on both of the banks suggests that there may be a connection between the river floods and the extent of the disease, but it is not explained. If we presume a parasitic origin of the disease, the drying vegetation on the river banks may be a favorable nidus for the growth of the parasite. The facts seem rather to support this view, but it does not explain the cause of the increase of cancer which is everywhere apparent. Given, however, other unknown predisposing factors, lowered vitality and impaired resistance, we may have along the banks of the river a more or less constant manufactory of the materies morbi.

6. **The Action of the Blood Serum of Acute Insanity on Bacillus Coli.**—Johnson and Goodall publish a table showing the agglutinative power of the serum of 100 cases of acute insanity on mixed and single strains of the colon bacillus, also the results in 29 cases of acute melancholia and 53 cases of acute mania. From these tables the following conclusions are drawn:

> 1. In 50 per cent. of the total cases of acute insanity there was agglutination, whereas this was present in only 15.5 per cent. of the controls. 2. The agglutination was partial in the great majority of the cases (39 per cent.). 3. In those forms of the disease in which the cases were sufficiently numerous to permit of percentages being taken (mania and melancholia) the preponderance of partial over good agglutination was also obvious. 4. The percentage of agglutination (good and partial) was greater (58.5) in the cases of melancholia than in those of mania (45.2). 5. The percentage of good agglutination was greater in melancholia than in mania. 6. Even when the disease is quite recent in duration there is as often as not a failure to agglutinate.

The Lancet, London.

April 9.

13 *Fractures of the Skull. Louis Bathe Rawling.
14 *Use of Dr. Marmorek's Antituberculous Serum. Arthur Latham.
15 *Mental Condition in Epilepsy in Relation to Prognosis. William Aldren Turner.
16 *Cardiac Dullness in Cases of Cancer. W. Gordon.
17 Case of Removal of a Polypoid Growth from the Base of the Skull After a Preliminary Excision of the Upper Jaw. F. A. Southam.
18 Case of Carcinoma Probably Originating in Retained Testis. W. Sydney Darby.
19 *Dilatation of the Heart. E. H. Colbeck.
20 Intralaryngeal Growths Treated by Means of the Galvanocautery. J. Dundas Grant.
21 A Non-toxic Preparation of Iodin. V. H. Wyatt Wingrave.

13. **Skull Fractures.**—Rawling's elaborate lecture discusses the mechanism of skull fractures, especially of the base, showing the greater resistance of the vault and the theories on which the basal portions are likely to participate in the lesion. He thinks that the bursting and compression and "contrecoup" theories of basal fractures are both untenable and that Aran's irradiation theory with certain modifications accounts satisfactorily for those basal fractures that follow blows on the vertex. Most basic fractures, he thinks, result from force applied directly around the basic level, and are the result of a splitting force, the line of fracture tending to travel across the base, parallel to the original direction, though not necessarily in the same straight line. The influences of sutures, of the basic foramina, of air sinuses and of the arrangement in the auditory region are also discussed. Fractures of the vault may be limited or may coexist with basic fracture and the greater the force the greater the tendency to limitation, while force applied obliquely downward usually results in extension toward the basic area. The possibility of fracture of the external table without injury to the internal table was until recently disputed, but the late war in South Africa has demonstrated the existence of such a fracture. Fractures of the internal table are most common where the diploic tissue is most abundant, and that is the mid-parietal and anterior frontal regions, where they may occur without any apparent injury whatever to the external table, but where the external table is fractured there is very probably also a fracture of the internal one, producing many complications. The prognosis in fractures of the anterior fossa are most favorable. Fractures of the middle fossa are most dangerous from local complications, infection from the nasopharynx, ear and injury to the arteries, but the mortality is probably progressive from before backward in these fractures and the proximity of the vital centers in the fourth ventricle renders posterior fossa fracture especially dangerous. The general mortality of all fractures with or without depression is from 20 to 25 per cent.; least in children, highest in old age. The possibility of recovery in posterior fossal fracture is admitted by most, though some deny it. He closes with some remarks on the medicolegal aspect of skull fractures.

14. **Marmorek's Antituberculous Serum.**—Latham has employed Marmorek's serum obtained from Marmorek himself, and thinks that when given in carefully graduated doses with proper precautions and in suitable cases it does no harm. Moreover, his experience tends to show that it does produce a specific antitoxic effect. An extended trial, he thinks, should be made, but it must not be forgotten that great care must be exercised in the administration, and it should be continued for a considerable period before definite results can be expected. He at first injected it under the skin in doses of 10 c.c. every day for a number of days, following this by an intermission and giving it again in reduced dose. Now he uses a dose of 5 c.c. for four consecutive days followed by three days of rest, having two or three repetitions of this, but after the third series giving at least two weeks' intermission. He thinks he has seen patients improve during periods of intermission.

15. **Epilepsy.**—The summary of Turner's article is given as follows:

> 1. A total of 161 cases, which have been under my observation at the Colony for Epileptics, Chalfont St. Peter, has been used for the investigation. 2. The mental features of the interparoxysmal state have been divided for descriptive purposes into four classes, the first containing those epileptics without any obvious mental impairment and the fourth those with the highest grade of dementia. 3. The interparoxysmal mental condition is discussed in its several varieties and degrees, with special reference to the influence of sex, hereditary disposition, age at onset and character, duration and frequency of fits. 4. Sex has little influence on the mental condition, but it may be stated in general terms that males are numerically more afflicted than females (91 per cent. of the former to 78 per cent. of the latter), but that the highest degree of dementia is somewhat more common in women than in men. 5. A family predisposition to epilepsy and insanity, although not necessarily militating against the retention of normal mental faculties, favors the supervention of some degree of mental impairment. A higher percentage with a hereditary history is found among those epileptics who show the profounder degrees of dementia, than among those who show merely impairment of memory, or a normal mental condition. 6. The duration of the disease influences to some extent the mental condition. Mental impairment is less frequent when the fits have lasted for under five years, just as mental integrity is less commonly seen when attacks have persisted for ten or more years. But mental health and mental deficiency are observed in cases in which the disease has lasted respectively for over twenty years and for less than five years. 7. The age at the onset of the convulsion influences to some extent the subsequent mental condition, for the earlier the onset, especially during infancy and childhood, the less the probability of an unimpaired mental state. 8. The character and combination of the fits have an important relation to the mental condition, the profoundest degrees of dementia being most commonly seen when the major and minor attacks coexist. The petit mal seizures occurring alone are found with the lower grades of mental impairment. When the grand mal occurs alone mental health is as common as mental deficiency. 9. There is a direct association between the frequency

of the fits and the mental state—the more frequent the seizures the greater the degree of mental impairment, and vice versa. Fits recurring in series are accompanied by a high grade of dementia. 10. The term "facies epileptica" is applied to the physiognomy characteristic of the disease in many epileptics. It is found more commonly with the higher grades of dementia, but its existence is not limited to such cases, for it is observed in those with only impairment of memory as well as without any mental failure. 11. The view is upheld that the interparoxysmal mental condition seen in most cases of epilepsy is one expression of the neurosis of which the fits constitute another; that the former is therefore not directly dependent on the seizures, and that the frequency and charactercombination of the paroxysms in association with the degree of mental failure indicate the severity and intensity of the disease. 12. The following figures show the percentage frequency of the four classes of mental deficiency among the 161 cases used for the purposes of this paper: Class A, intellectually normal, 13.6 per cent.; Class B, with impaired memory, 31.6 per cent.; Class C, feeble minded, 25.4 per cent.. and Class D, demented, 29.1 per cent.

His paper is an elaborate statistical study covering all the points mentioned above.

16. **Cardiac Dullness in Cancer.**—Gordon observed in the routine examination of several patients with gastric cancer that though no evidence of ordinary emphysema existed, the area of cardiac dullness was very much reduced, if not actually obliterated. The reduction or obliteration of cardiac dullness was sometimes associated with a rather surprisingly small and soft pulse. He has become so sure that this suggests cancer that he has risked a diagnosis on it, and in five consecutive cases the diagnosis proved correct. Putting aside cases where special causes exist, either for the obliteration of the heart dullness or for the prevention of such obliteration, the following, he says, seems to be true:

1. Great reduction or obliteration of the normal cardiac dullness is common in cases of cancer, particularly in cancers of the alimentary canal and in their late stages. 2. This loss of cardiac dullness does not seem to be found in the earliest stages of a cancerous case. but may precede cachexia, marked wasting and loss of skin elasticity. 3. It is rarely observed in non-cancerous cases. 4. It is rarely absent in the later stages of cases of cancer of the alimentary canal. 5. It does not seem to occur in cases of sarcoma. 6. In doubtful cases its presence is highly suggestive of cancer; its absence is slightly suggestive of the absence of cancer. if the symptoms under consideration have lasted for several months.

A number of cases are reported.

19. **Dilatation of the Heart.**—The theory of development of heart dilatation held by Colbeck is that of impairment of its muscle power. He thinks the same theory might explain the mode of production of dilatation of other hollow muscular viscera, stomach, intestines, etc.

The Practitioner, London.

April.

22 Two Clinical Lectures on Progressive Muscular Atrophy. F. W. Mott.
23 Typhus in Egypt. F. M. Sandwith.
24 Some Observations on Carcinoma of the Colon. H. S. Clogg.
25 Plea for Aseptic Midwifery in General Practice. P. R. Cooper.
26 Hygienic Surgery. Fred K. Eltinger.
27 Cerebral and Mental Diseases in Relation to General Medicine. H. Campbell Thomson.
28 Some Recent Work on Diseases of the Pancreas. R. Salisbury Trevor.
29 Provision of Sanatoria for London Consumptives by the Metropolitan Asylums Board. Louis Parkes.

Annales de Dermatologie et de Syphiligraphie, Paris.

Last indexed XLI, page 1170.

30 (IV, No. 10.) Contribution à l'étude des tuberculides. Nicolau (Bukharest).
31 *Sur l'installation de la syphilide pigmentaire du cou (of the neck). Hulleu.
32 (No. 11.) *L'acne hypertrophique du nez et son traitement chirurgical (acne of nose). W. Dubreuilh (Bordeaux).
33 *Quelques reflexions sur certains traitements actuellement usités dans la lèpre. J. Brault (Alger).
34 (No. 12.) De la dermatite polymorphe douloureuse (dermatite herpetiforme de Dühring-Brocq) chez l'enfant (in children). P. Meynet and M. Péhu.
35 *Dermatites pyémiques. A. Lebet (Berne).
36 (V, No. 1.) Des erythémato-scléroses et, particulierement, de l'erythémato-sclérose pemphigoide. C. Audry (Toulouse).
37 Etude du pemphigus végétant de Neumann. R. Stanziale (Naples).
38 Cas de lichen verruqueux du cuir chevelu (of scalp). Emery and Umbert.
39 (No. 2.) Quelques recherches sur l'élimination du mercure par les urines. Carle and Boulud (Lyons).
40 Cas de larva migrans. E. Lenglet and P. Delaunay.
41 Sur le chancre syphilitique du col de l'uterus, et en particulier sur une forme ulcéreuse; sa confusion possible avec l'epithélioma utérin. G. Thibierge.
42 Etat constitutionnel des rhumatisants blennorrhagiques. A. Renault.
43 *Signe de diagnostic des epithéliomas des regions pileuses. Audry. From society report.
44 (No. 3.) *Sur une nouvelle forme de dermatose papulo-exsudative provoquée par la pilocarpine. H. Hallopeau and Vieillard.
45 Conception générale des dermatoses. L. Brocq. (Continued.)

31. **Pigmented Syphilids on the Neck.**—Hulleu concludes from a study of 23 subjects out of a much larger experience that roseola occurs on the neck much more frequently than is generally supposed, but it is usually so fleeting that it escapes observation unless special watch is kept for it. The spot occupied by the roseola is the site of the syphilid later. The pigmented ring around it is probably the result of the disturbances in the circulation immediately surrounding the cicatricial relics of the roseola.

32. **Surgery of Hypertrophic Acne of Nose.**—Dubreuilh now operates on a nose showing signs of hypertrophic acne, without waiting for the organ to assume great size. He relates the particulars of 6 pronounced cases, the illustrations showing the entire relief of the deformity. He makes an incision on the median line and then dissects out the tumors on each side, the finger in the nostril as a guide. There is very little hemorrhage. He prefers to cut off slices after the first large mass has been removed, applying thermocautery at once to each raw surface, and thus carving out a good shaped nose, leaving always the inner wall .5 cm. in thickness at least, a little thicker at the nostrils and a little thinner at the tip of the nose. A groove should also be made with the thermocautery to define the ala nasi, where cicatricial retraction is liable to be excessive. As asepsis is out of the question, he dresses the raw surfaces with boricated dressings; the eschar drops off in six or seven days, at which time there is liable to be a little secondary hemorrhage, always easily controlled. By the end of the second week most of the wound has healed, that is, wherever sebaceous glands existed; those parts alone where the surface was purely fibrous take longer to heal. This is the time to apply the Thiersch flaps. He takes them from the arm and covers the surface well with them. The flaps must not be too thin. The results of this decortication and transplantation have been definite in all his cases. No recurrence has ever been reported, and in one of the cases described the acne on the cheeks subsided spontaneously after the healing of the nose. Even superficial decortication seems to arrest the progress of the affection, which suggests that the subepidermic layer is the seat of the trouble, and also that any deformity of this kind may be arrested in its early stages.

33. **Treatment of Leprosy.**—Brault advocates mercurial treatment of lepers for the reason that marked improvement has followed its use in many cases; it is also convenient, as the personnel of the dermatologic clinics are trained in mercurial treatment, and also because it places the lepers on the same plane as the other frequenters of the clinic and leaves them a ray of hope, the physician thus dissimulating his conviction of the powerlessness of medical aid in this inevitably fatal disease. Let us relieve and console, Brault continues, since we can not cure. Hygiene and local treatment, with minor surgical interventions as needed, will relieve and prolong life in these cases. In his experience numberless remedies and local applications were tried, none more than transiently beneficial.

35. **Pyemic Cutaneous Affections.**—Lebet draws the clinical and histological picture of the pyo-septicemic dermatoses caused by microbes brought to the skin by the blood. He calls them pyemic or metastatic dermatoses and points out the points of resemblance between those caused by streptococci and staphylococci and the syphilitic and typhoid roseola, the macula of lepra, etc. These pyemic skin affections may be purpuric, pustulous, varioliform or nodular in character. There is no reason for classing them as angioneuroses; they are not erythemata, but inflammations.

43. **Diagnostic Sign of Epithelioma in Hairy Regions.**—Audry calls attention to the persistence of apparently normal hairs in a chronic ulcerated patch, as a sign of epithelioma. Solidly implanted hairs in or between the masses of the growth occur only in this kind of a chronic ulceration.

44. **New Form of Dermatosis Induced by Pilocarpin.**—A man of 52, previously healthy, consulted a distinguished ophthalmologist last December on account of an ocular affection diagnosed as episcleritis with exaggerated tension, an attack of

subacute glaucoma. He was treated by instillations of a .5 per cent. solution of pilocarpin and hypodermic injections of the same, at first .5 cg. and then 1 cg., with 3 gm. of sodium salicylate daily. After fifteen days of this treatment vision had improved and the dose of pilocarpin was reduced to .5 cg., but twelve days later exacerbation of the eye troubles having been noticed, the dose was increased again to 1 cg. On suspension of this treatment after it had been continued for thirty-five days, a peculiar dermatosis developed with symptoms indicating intoxication, the disturbances affecting the nervous system, brain, circulation and miction, with death the sixty-third day after commencing treatment. The papulo-exudative dermatosis was localized in the sweat glands, affecting mostly the face and members. The exudate was at first limpid, but soon became purulent. The papules in the plantar region persisted without opening. The clinical characteristics of this dermatosis differ from every other known to date. The severe disturbances in the brain and heart innervation are especially striking features, as also the absence of fever, and the lack of any antidote for pilocarpin and of means to insure its elimination. Hallopeau formulates the law that every morbific agent exerts an action specific to itself on certain elements of the organism into which it is introduced, while, on the other hand, each of these elements opposes a specific resistance to it.

Presse Médicale, Paris.

46 (I, No. 24.) *L'hospitalisation des tuberculeux à Paris. Résultats generaux de l'enquête de la *Presse Médicale.* E. De Lavarenne.
47 Des variations du poids au cours de la scarlatine (variations in weight). M. Garnier *and* Sabaréanu.
48 Causeries électriques. Physiologie du courant électrique. Ses propriétés. A. Zimmern.

46. Tuberculous Inmates of Paris Hospitals.—The isolation of tuberculous subjects is the question of the day at Paris, as has been mentioned in our news columns of late. The *Presse Médicale* has been collecting the exact number at present sheltered in the hospitals and finds that in the 106 different medical and surgical "services" there were 8,836 patients under treatment on March 17, 1904. Of this total number 1,789 were tuberculous, including 1,172 men, 536 women and 81 children. The "closed" cases numbered 540, of whom 292 were men, 206 women and 52 children. The "open" dangerous cases numbered 1,249, of whom 880 were men, 330 women and 39 children. This is a proportion of about 22.5 per cent. of the total number of the hospitalized. The capacity of the Paris hospitals is estimated at 7,194, and their crowded condition is shown by the large number over this figure now sheltered in them. The city of Paris has appropriated $9,000,000 for the reconstruction of its hospital service, and is anxious to eliminate the chronic cases to make room for the acute cases and wounded for whom the city hospitals are primarily destined. Sweeping changes are contemplated.

Semaine Médicale, Paris.

49 (XXIV, No. 13.) *La coexistence de la fièvre typhoide et de la scarlatine. F. Faruarier.
50 *Séparation de l'urine des deux reins au moyèn du massage du rein (of kidney). D. Giordano and G. Nicolich. Abstract.
51 *Action élective de plusieurs parties du corps sur certains écrans phosphorescents. A. Charpentier (Nancy). From society report.

49. Coexistence of Scarlet Fever and Typhoid.—Farnarier analyzes a total of 75 cases of the coexistence of these two diseases that have been published since 1833. The list includes 39 absolutely beyond criticism, and on these his monograph is based. The typhoid infection is the preceding one in the vast majority of cases, but occasionally the onset of the two diseases is simultaneous and the scarlet fever masks the typhoid, until as convalescence from the former occurs, the signs of the latter are revealed. The prognosis of the combination does not seem to be more unfavorable than of typhoid fever alone. In the 39 cases the mortality was only 10 per cent. In the fatal cases death was induced by the hemorrhagic form of the scarlet fever in 2 instances, by uremia in another, and by perforation during a relapse of the typhoid in the fourth. He does not regard this low mortality as more than a mere coincidence—not establishing that the two diseases attenuate each other. In each of these fatal cases the typhoid had preceded the scarlet fever. Among the complications noted have been ear troubles in 2; albuminuria in one, and consecutive typhoid phlebitis in another, also albuminuria from the onset of the scarlet fever in one case, with an attack of acute nephritis as the typhoid fever declined. Marrotte's patient exhibited edema of face, hands and feet with oliguria, but no albuminuria. In 2 cases convalescence was disturbed by suppuration of cervical glands. Whenever a scarlet fever shows atypical features, especially during its decline, the possibility of an unrecognized typhoid should be borne in mind, and the prognosis be guarded until this question is settled. Inversely, when a scarlatiniform eruption occurs during typhoid fever it should not be ascribed as a matter of course to a toxic or infectious erythema, but the possibility of scarlet fever should not be forgotten. The consequences of overlooking such a possibility might entail very serious consequences both for the patient and his environment. Nineteen articles are reviewed, including one by Hektoen.

50. Segregation of Urine by Massage of the Kidneys.—Giordano and Nicolich have been applying massage of the kidney as a means of testing its functions. The former has the subject recline for a few hours and then squeezes one kidney with massage of the region and of the back and side of the abdomen. The urine is then withdrawn from the bladder and the other kidney is manipulated in the same way. If the urine obtained from each kidney differs in its composition, there is evidently some difference in the condition of the organs. Nicolich rinses and evacuates the bladder and then introduces a catheter. He then massages one kidney; if the organ is normal clear urine drips from the catheter, the drops coming more frequently the more energetic the massage. He then massages the other kidney in the same way. When it is pathologic the urine, clear at first, soon becomes turbid. He was able to locate the diseased kidney in 2 cases in which he applied this functional test, and the diagnosis was confirmed by the nephrectomy. When the patient voids turbid urine while clear urine is obtained under massage of both kidneys then the lesion can not be in the kidneys, but must be sought elsewhere, as he had occasion to establish in one instance.

51. Elective Action of N Rays.—Charpentier found that most of the alkaloids and poisons emit N rays, and also that the action of these substances on the phosphorescent screen was enhanced by the vicinity of another source for the N rays. The idea then occurred to him to construct a phosphorescent screen containing some of these substances in addition to the phosphorescent sulphid. These screens are acted on by the physiologic N rays, but in an elective manner. The organ which acts most energetically on a given screen is always that organ which has the strongest affinity for the alkaloid used in making the screen. For example, the digitalin screen is rendered most luminous when exposed to the N rays from the heart; the pilocarpin screen when exposed to the glands, atropin to the heart—whose action atropin accelerates—while the atropin screen becomes less luminous when exposed to the N rays from the glands. The strychnin screen is most luminous when exposed to the spinal cord, the apomorphin screen with the medulla, the nicotin screen with the protuberantia, the santonin screen with the visual centers, etc., etc. See editorial pages.

Berliner klinische Wochenschrift.

52 (XLI, No. 12.) *Improved Salves. O. Liebreich.—Ueber Fetron Salbe.
53 *Zur [illegible] Heu-Fiebers. A. Lubbert and C[illegible].
54 *Medicolegal Expert Testimony. W. A. Freund.—Meine Erfahrungen als Sachverständiger im Strafprocess und die darauf gegrundeten Vorschläge zu Veränderungen der bisher geltenden Strafprocessordnung. (With discussion.)
55 (No. 13.) *Gonorroe im Wochenbett (during confinement). A. Martin.
56 Origin of Human Tuberculosis. J. Orth (Berlin).—Einige Zeit- und Streitfragen aus dem Gebiete der Tuberculose. (Commenced in No. 11.)
57 *Zur Diagnose des Magen Carcinoms (of stomach). J. Sigel. (Commenced in No. 12.)
58 Warning Circular Issued by German Society for Repression of Venereal Diseases. A. Blaschko (Berlin).—Das Merkblatt. etc.
59 *Treatment of Trypanosoma Affections with Stains. P. Ehrlich and K. Shiga.—Farbentherapeutische Versuche bei Trypanosomenerkrankungen.

of 100 c.c. during the tempestuous onset of an acute nephritis. Baccelli repeats the venesection if necessary.—Ed.]

66. **Asepsis of Hands During Operations.**—Rydygier believes in repeated rinsing of the hands in saline solution during operations, and thinks that if both operator and assistants acquire this habit of frequently repeated mechanical cleansing of the hands gloves will not be needed.

67. **Intravenous Infusion. Technic and Resuscitation of Babe.**—Schücking gives a picture of an apparatus which has done him good service for twenty-seven years in intravenous infusion. A tube with faucet projects tapering to a point inside a glass receptacle with an outlet below. As the fluid enters through the tube above all air bubbles escape and rise to the top of the receptacle while the fluid passes on and out below. He adds parenthetically that he has succeeded in reviving still another newborn babe in almost hopeless asphyxia by infusing into the umbilical vein 30 gm. of a 1 per cent. solution of sodium saccharate to which 6 drops of a 1/10 alcoholic solution of camphor had been added. He was unsuccessful in another case, probably because he waited too long before resorting to this simple measure. See his previous article in The Journal, xxxix, page 454.

68. **Elimination of Pneumothorax in Intrathoracal Operations by the Pneumatic Chamber.**—Under this heading The Journal, page 930, described the air chamber devised by Sauerbruch, "scientific assistant" at Mikulicz' clinic, to exclude the pressure of the atmosphere and thus enable surgical intervention inside the thorax without dread of the collapse of the lungs. When the atmospheric pressure is eliminated the lung action continues practically unmodified whether the thorax is opened or not. He stated that his communication was only a preliminary note, but it was soon followed by an article from Brauer and Petersen, who announced an "essential simplification of the Sauerbruch method." Sauerbruch here claims priority for this "simplification" and shows that the idea had occurred to him and had been applied in the clinic before the Heidelberg professors had thought of it. It is a reversal of the air chamber technic. Instead of placing the patient or animal in the air chamber with his head outside and eliminating the atmospheric pressure inside the chamber, the head is placed in the air chamber, the body outside, and the atmospheric pressure inside the air chamber is artificially raised to an over-pressure of 10 mm. mercury. This insures the maintenance of the physiologic difference between the pressure within and without the lungs, and the lung action continues unmodified when the thorax is opened. The animals in his experiences continued to breathe naturally notwithstanding that both lungs were freely exposed to the air. The objection to this technic was found to be that the person administering the anesthetic inside the air chamber was subjected to such inconvenience that this mode of avoiding pneumothorax was temporarily abandoned until a larger air chamber could be procured. The new one now building is made to use with either a minus or plus atmospheric pressure. The Heidelberg clinicians propose to use instead of the air pump an oxygen tank to induce the over-pressure. These communications are given a separate supplement in the *Centralblatt* with leaded type. Sauerbruch adds in conclusion that he is convinced that by the elimination of atmospheric pressure all kinds of operations on the brain, eye, heart, spine and diaphragm may be facilitated. In his work on the lungs he aims to supply the difference of atmospheric pressure as if the air chamber were merely an enlargement of the natural pleura. The Brauer and Petersen article was published in the *Zeitschrift f. phys. Chemie*, xli, No. 4. [Mikulicz contributes an article on this subject to the *Deutsche med. Wochft.* of April 7, recapitulating the above points. He urges the general adoption of the word thoracotomy as an equivalent for laparotomy, as the air chamber allows ample access to the thorax, which thus becomes as accessible as the abdomen. The operator must, however, be careful to make the closure of the wound opening into the thorax absolutely air tight, as otherwise pneumothorax is liable to develop later. On this account he advises to make the opening in an interspace without resecting the ribs. The incision must be exactly in the center of the interspace to allow perfect suturing afterward. The ribs can then usually be pushed apart sufficiently to allow ample access. If not, one can be broken with the hands, inside its periosteum, which obviates the necessity for suturing it later. He uses a retractor to hold the ribs out of the way similar to an ordinary lid holder. The third to the seventh interspaces are best adapted for this intervention. The protruding lung is held back in the same way as the intestines during a laparotomy. The intercostal musculature is then carefully sutured, if necessary throwing the catgut around the rib for a better hold. The muscles above are then sutured in tiers with catgut and the skin with silk. Resection of the ribs may be unavoidable in some cases. His article is not concluded.—Ed.]

Centralblatt f. Gynäkologie, Leipsic.

69 (XXVIII, No. 12.) *Position of Arms During Narcosis. H. Rothe (Breslau).—Die Lagerung der Arme in der Narkose
70 *Successful Prophylaxis of Postoperative Cystitis. K. Baisch (Döderlein's clinic, Tübingen).—Erfolge in der prophylaktischen [illegible] operativen Cystitis.
71 *Removal [illegible] Way of Vagina. R. Gradenwitz ([illegible] eines Uretersteines auf vaginalem Wege.

69. **Position of Arms During Narcosis.**—Rothe is convinced that postoperative paralysis of the arm is a more frequent occurrence than is generally recognized, as also slighter parectic conditions, etc. The brachial plexus is compressed between the clavicle and the first rib when the arms are raised, and he seeks to avoid this by fastening the arms parallel and close to the trunk. He uses a couple of arm bands for each arm, one for the forearm and the other for the upper portion. The corresponding bands are fastened together under the table. It is impossible to keep watch of the pulse with the arms thus bound down, but this, he thinks, is immaterial, presenting arguments in favor of this view and citing the English anesthetists who have long since discarded the control of the pulse as superfluous. He quotes Czempin's work on chloroform narcosis as the standard authority on this subject.

70. **Avoidance of Postoperative Cystitis.**—Baisch made the discovery that the death of a certain patient fourteen months after ablation of a uterine cancer—the general health being good during the interval—was due to a progressive postoperative cystitis. He believes that it is more than probable that many deaths which have been attributed to recurrence of the cancer or to an intercurrent affection, were in reality due to an unsuspected postoperative cystitis or its sequels. There has not been a single instance of postoperative cystitis in the 31 cases operated on by the Wertheim technic since he instituted systematic rinsing out of the bladder every time the catheter is used. Only one of the 31 was able to urinate spontaneously from the first, and 5 died in the course of the week with no manifestations of cystitis. Of the remaining 25 one had suffered from severe nephritis before the intervention and it proved impossible to avert the cystitis in her case. In 2 the last drops of urine were a trifle cloudy and the colon bacillus was found, but vanished in a few days with no further signs of trouble. The others—some of whom required catheterization for eighteen days before spontaneous urination was restored—all escaped any bladder trouble. Even after spontaneous urination is restored it is at first imperfect and the bladder is not completely emptied, thus favoring infection. Hence it follows that these irrigations must be faithfully kept up until the bladder function is completely restored to normal and the last drops of urine are spontaneously evacuated. Wertheim himself now injects a solution of protargol or boric acid as a prophylactic measure. By this means all the germs introduced by the catheter are killed at once before they have time or opportunity to do any damage.

71. **Removal of Stone in Ureter by Way of Vagina.**—General narcosis was not considered necessary. The bulging portion of the ureter was reached through an incision in the anterior wall of the vagina and pushed down and out through another incision just above. The lower portion of the parametrium had been previously incised between two ligatures. The ureter was incised and after a calculus the size of a cherry-stone had been removed the ureter was sutured with the finest thread, over the sound at first, the other tissues with catgut. The

operation lasted an hour, but the patient did not moan once. Convalescence was smooth, without fever, and in three weeks the patient was dismissed as cured of the present trouble. The cystoscope showed both ureters functioning normally. The two scars in the vagina could scarcely be felt, the urine was limpid, there was no trace of a fistula and there had been no change in these conditions when the patient was last seen four months later. She was a woman of 43 with organic heart disease, a v-para.

Gazzetta degli Ospedali, Milan.

Last indexed page 933.

72 (XXV, No. 28.) Reazione glicogenica dei globuli bianchi (of leucocytes). C. Tarchetti.
73 Caso di lombricosi epatica. F. Schupfer (Rome).
74 L'infantilismo. A. Bruno.
75 A proposito delle sostanze urofane. S. Ceraulo.
76 Severe Intoxication from Viper Bite Cured by Intravenous Injection of 1 Per Cent. Potassium Permanganate. A. Mori.—Caso grave di avvelenamento da vipera curato col sico.
77 itiva dell' ovaio. G. Senni.
78 , tempo di tensione in individui cardio- and F. Soprana.
79 icker. L. Datta.
80 Dispepsie gastriche nei malarici. A. De Blasi.
81 Caso di mastite della menopausa con esito in suppurazione. N. Muglia.
82 New Operating Table. C. Dalla Rosa (Treviglio).
83 (No. 34.) Sublimate in Experimental Anthrax. D. Calamida. —Sull'azione del sublimato nelle infezioni sperimentali da carbonchio negli animali refrattori.
84 *Sulla terapia della peritonite tubercolare. L. Miserocchi.
85 Ricerche batteriologiche in 2 casi di ileotifo ad inizio brusco e sfebbramento rapido. C. Quadrone.
86 Casuistica dell' emiplegia linguale. F. Corsini.
87 (No. 37.) Epidemia famigliare di polmonite (of pneumonia). C. Tarchetti.
88 Sulla emostasi epatica. G. B. Segale.
89 La stenosi uretrale traumatica nella legge degli infortuni sul lavoro (in industrial accident insurance). C. Momo.
90 Raro caso di proiettile en el ventricolo sinistro del cuore (bullet in left ventricle). Bechi and Corsini (Grosseto).

84. Medical Treatment of Tubercular Peritonitis.—Miserocchi reports 14 cases of tubercular peritonitis cured by medical means alone. His experience has been still larger than this, but he mentions only those cases in which the interval since has been long enough to speak of a permanent cure. Measles or pertussis had preceded the tuberculosis in more than 78 per cent. of the cases. This confirms Rander's figures. He found measles or pertussis, or both, in the antecedents of 83 per cent. of 352 tuberculous children. Miserocchi emphasizes this fact as of preponderant importance for the prophylaxis of tuberculosis. In 8 of his 14 cases there was ascites; in 4 a mixed, fibrous-ascitic-caseous form, and in 2 the fibrocaseous form. Treatment was by the use of iodin internally and externally. The children were put to bed and given a milk diet at first, with disinfection of the digestive tract, plenty of fresh air and gradually increasing nourishment to forced feeding. The children were cured as a matter of course even when merely out-patients. both in cases in which the peritonitis was the only manifestation of the disease and also in those in which the pleura or lungs were probably affected. Iodo-tannic syrup was given internally with an iodo-iodid salve rubbed into the abdomen. The ascites was absorbed and the palpated nodules retrogressed. The communication issues from Cattaneo's clinic at Parma.

Riforma Medica, Palermo.

Last indexed page 866.

91 (XX, No. 6.) Sull'esistenza in natura di virus rabico rinforsato. L. d'Amato (Naples).
92 Della gastroenterostomia alla Roux. N. Giannattasio.
93 *Il triangolo paravertebrale di Grocco. G. Baduel. Abstract.
94 (No 7.) Sull' origine della citasi. G. Lucibelli (De Renzi's clinic, Naples).
95 La pleurite linfomatosa. A. Signorelli (Baccelli's clinic, Rome). (Commenced in No. 6.)
96 Sulla natura ed azione della tossine difterica. G. Castronuovo.
97 Associazione del bacillo pseudo difterico col gonococco di Neisser. L. Maccone (Turin).
98 Contributo allo studio dell'idrocefalia. T. Montagnini.
99 *Silver Fluorid in Erysipelas, Smallpox and Puerperal Infection. F. Jaja and F. De Marchis.—Il tachiolo nella cura del vaiuolo, etc. Abstract.
100 Nuevo metodo operativo per l'asportazione del laringe. F. Durante (Rome). Abstract.
101 *Terapia degli aneurismi dell'aorta. C. Forlanini. Abstract.
102 (No. 8.) *Le meningiti latenti nei pneumonici. G. Curlo (Maragliano's clinic, Genoa).
103 *Le infezioni miste nella difterite e loro cura. G. Castronuovo.
104 *Sull' uso del drenaggio retrogrado nelle ferite attraversanti il cervello (retrograde drainage of wounds traversing the brain). T. Cavazzani (Parma).
105 *Sulla patogenesi della nevrastenia e suoi rapporti colla nefroptosi. G. Ruggi (Modena). Abstract.

93. Grocco's Paravertebral Triangle.—When one side of the thorax is filled with a pleuritic effusion the contents are pushed over on the opposite side. There is an area of dullness over the rear of the thorax in these conditions coinciding with the center of the spine at the top, spreading out a little toward the bottom on the side of the effusion, and forming almost a square on the other side, although the general outline of the whole is rather triangular. The conditions in health and with artificially induced effusions of varying amounts are given in 7 diagrams. The pleural sac presses evenly against the spine, which explains the dullness over it. The effusion sometimes collects more at the back and sometimes extends more evenly all around the wall of the thorax. When the latter occurs there is liable to be a retrosternal area of dullness, which Banti has described as also a sign of pleuritic effusion.

99. Silver Fluorid as an Antiseptic.—A large number of Italian clinicians have been using silver fluorid with great success in the treatment of erysipelas, smallpox and puerperal infection. Some proclaim that it is the most powerful antiseptic at our disposal in comparison with its harmlessness for the tissues. Its action is purely local. Jaja has recently reported a severe case of confluent smallpox treated with a 1/10,000 solution of this drug with complete recovery in twenty-two days. He applies it as a spray under pressure, which is a peculiarly convenient form in smallpox, anthrax, etc., and allows the drug to penetrate into the deepest crevices. The vesicles were all aborted and none passed beyond the serous stage. The disease otherwise continued its regular course, unmodified by the applications. The spray was applied four times a day for fifteen days. The abortion of the vesicles in this case has convinced Jaja that the suppuration of the pustules is not an integral part of smallpox, but is due to secondary infection, an avoidable complication from the presence of pus cocci which are readily destroyed by the fluorid. In erysipelas the fluorid cured both the local and the general symptoms. De Marchis reports 16 cases of puerperal infection treated by daily intra-uterine irrigation with a 1/4,000 solution of the fluorid, using as much as three quarts of the solution, until it came away clear. Three to six irrigations generally succeeded in banishing the fever, but in one case eight were required and in another eleven. The sole inconvenience is that the solution spots the linen, but this is trifling in comparison with its many advantages. Mirto of Pavia also commends it as the most valuable of all disinfectants for the uterus and vagina.

101. Gelatin in Aneurisms of the Aorta.—Forlanini relates experiences with the therapeutic use of gelatin which establish that it has a marked influence on the arterial pressure, reducing it considerably when it is pathologically high. In a case of aneurism consecutive to smallpox he obtained prompt benefit from administration of gelatin either by the mouth or subcutaneously. The arterial pressure was materially reduced. This effect was never apparent when the arterial pressure was only slightly above normal.

102. Latent Meningitis in Pneumonia.—Curlo describes 2 cases of pneumonia in which the delirium and other symptoms observed were explained by unsuspected lesions of meningitis found at the necropsy. Out of a total of 1,350 pneumonia patients, in 20 these lesions were found in the meninges postmortem. This is a proportion of 1.9 per cent., while others have published percentages of .08 to 2 per cent. The prognosis of these cases should be guarded. The sole manifestation is usually the delirium with possibly convulsive attacks indicating trouble in the lower portion of the rolandic region. Two cases are described in detail.

103. Serum Treatment of Mixed Infection.—Castronuovo reviews nearly a dozen series of tests of antistreptococcus and antidiphtheria serum administered simultaneously to rabbits. The effects were not striking, but when anti-pneumococcus serum was given with the antidiphtheria serum, in cases of mixed infection from these germs, the results were highly successful.

104. **Retrograde Drainage of Brain Wounds.**—Cavazzani's patient was a young man who had been shot through the head, the bullet entering the right cheek and emerging in the left temple, severing the left optic nerve. The entire track left by the bullet was drained with a strip of iodoform gauze passed entirely through it and renewed every two or three days, for fifteen days. The gauze was then gradually withdrawn, a little at a time, allowing the wound to heal behind it. The fundus of the eye showed no lesions, but there was acute delirium during the first few days and at night for a time afterward. As the wound healed memory returned, particularly for past events, while for recent ones it was still defective. These disturbances, however, soon subsided and the psychic balance seemed completely restored, testifying to the fact that the functional lesion of the frontal lobe from the bullet had been merely a kind of paralysis from the trauma or shock, and not due to destruction of tissue. A year later the only visible traces of the accident were a slight interference with the movements of the jaw, and a slight depression in the temple; the muscular apparatus of the left eye was apparently intact, but mild epilepsy developed eight months after the accident, about one seizure a month, each preceded by a sensory acoustic aura which the patient described as a diabolic confusion of sounds and rumblings, followed by loss of consciousness and a day or so of prostration. There was no initial cry, no convulsion and no tongue symptom. At other times the hearing was normal. The memory was perfect except for the week or so preceding and following the accident. He had also lost the memory for many tunes which he had formerly been able to whistle. The mild character of the symptoms observed in this case was evidently due to the remarkable escape of the more important structures in this region as the bullet passed, but also in great measure to the prompt and effectual retrograde drainage, as Cavazzani calls it, passing completely through the head from one end of the bullet track to the other, but in the opposite direction to that followed by the bullet. By drawing the gauze through the passage it was cleared of clots and other débris while the iodoform insured antisepsis. The strip of gauze was wide enough to keep it in soft contact with the walls without compressing them. The effusion of serum into the gauze must have had a tendency to wash out into it all scraps of injured tissue which were thus easily removed as the gauze was drawn along. The case shows that the injured anterior end of the first left temporal convolution belongs to the zone of association, and that the impressions are arranged by allied groups on the cortex of this zone and are not diffuse and mixed as is probably the case in the anterior or frontal zone. In conclusion he relates the clinical history of a case of abscess in the right frontal lobe, consecutive to frontal sinusitis, with complete recovery after operative intervention. The symptoms had been slight mental disturbances, conjugated rotation of the head and eyes and jacksonian epilepsy in the domain of the facial nerve and left brachial plexus and in the adjacent regions, especially affecting some center of phonation. The mental disturbances were evidently a sign of paralysis from destruction, while the other symptoms indicated irritation or hyperfunction. Both cases are analyzed in detail, and the localization data compared.

105. **Neurasthenia in Relation to Nephroptosis.**—Ruggi admits the existence of an internal secretion in the kidneys. This secretion, in harmonious action with the other secretions, etc., of the organism, establishes what we call health, and any disproportion between these internal secretions causes sickness. When one of these secretions is lacking, as, for instance, after ovariectomy, the consequent disturbances may possibly be combated by organ therapy, not of the missing organ, but to reduce or stimulate the secretion of some other organ or organs which in these conditions are functioning out of proportion to the total output of internal secretions. When the kidneys are producing their internal secretion in deficient amount or in excess, as in case of a kidney irritated by displacement, the patient is liable to suffer in various ways which may be grouped as neurasthenia. The morbid condition may require treatment to increase the amount of the internal secretion of the displaced organ or to stimulate other organs to keep pace with its increased secretion. The partial ischemia, the ischemic neuralgias noted in case of nephroptosis, the oliguria or anuria observed in patients after nephropexy or during renal colics from calculi, may all be regarded as the effect of the deportation of renal material by way of the circulation—they are not merely the reflex phenomena they are usually considered. The sensory nerves in case of ptosis of the kidney are liable to be unduly stimulated, and this in turn entails psychic or nervous disturbances in the predisposed. He cites as an example of this condition the constant vague pain in the lumbar region noted in tardy neurasthenia after removal of the uterus and annexes. He suggests the practicability of treating neurasthenia consecutive to castration, by organ therapy addressed to the internal secretion of the kidney, which, under these circumstances, becomes either absolutely or relatively excessive.

Books Received.

Physiology and Pathology of the Urine, with Methods for Its Examination. By J. Dixon Mann, M.D., F.R.C.P., Physician to the Salford Royal Hospital. With Illustrations. Cloth. Pp. 272. Price, $3.00. London: Charles Griffin & Co., Ltd. Philadelphia: J. B. Lippincott Co. 1904.

A Text-Book of Physiology. By Isaac Ott, A.M., M.D., Professor of Physiology in the Medico-Chirurgical College of Philadelphia. With 137 Illustrations. Cloth. Pp. 563. Price, $3.00 net. Philadelphia: F. A. Davis Company.

The Therapeutics of Mineral Springs and Climates. By I. Burney Yeo, M.D., F.R.C.P., Emeritus Professor of Medicine in King's College, London. Cloth. Pp. 760. Price, $3.50 net. Chicago: W. T. Keener & Co. 1904.

Twenty-Eight Annual Report of the New York State Reformatory at Elmira. Illustrated Year Book. For the Fiscal Year Ending Sept. 30, 1903. Paper. Pp. 105. Reformatory: The Summary Press. 1904.

Le malattie dei paesi caldi loro profilassi ed igiene con un'appendice: *La vita nel Brasile.* By Dott. Carlo Muzio. Un vol. di pag. xl-560 con 154 inc. e 11. L. 7.50. *Milano: Ulrico* Hoepli. 1904.

Transactions of the Thirty-First Annual Session of the Medical Society of Virginia, Held in Roanoke, Va., Sept. 15-17, 1903. Cloth. cxx-362. Richmond, Va.: Williams Printing Co. 1904.

La Rachitide e le deformita da essa prodotte. By Dott. P. Mancini. Un vol. di pag. xxviii-300, con 116 inc. L. 4. Milano: Ulrico Hoepli. 1904.

Biennal Report of the State Board of Health of Kentucky, 1902 1903. Cloth. Pp. 386. Louisville, Ky.: Geo. G. Fetter Printing Co. 1904.

Elettricita Medica. By A. D. Bocciardo. Un vol. di pag. xi-201. L. 2.50. Milano: Ulrico Hoepli, 1904.

NEW PATENTS.

Patents of interest to physicians, etc., March 22 to April 12:

755108. Pasteurizer. A. A. Busch, R. Gull and T. J. Barry.
755121. Electrical apparatus for therapeutic purposes. Frederick C. Fisher, Bristol, England.
755549. Dropping stopper. Karl Rettig, Spandau, Germany.
756005. Suspensory bandage. Edwin R. Drake, De Land, Fla.
756161. Atomizer. John P. Farmer, Portland, Ore.
756007. Cushion for douche pans. Harriet E. Felthousen, Jersey City, N. J.
756165. Uterine supporter. Jesse T. Hall, Chicago.
756122. Fastening device for truss pads. John E. Lee, Conshohocken, Pa.
755921. Surgical instrument for hemorrhoids. John W. O'Neill, Chicago.
755823. Spraying device. Russell B. Williamson, Clifton Springs, N. Y.
756457. Suppository-molding machine. Frank R. Bent, Hartford, Conn.
756213. Surgical knife. Smith A. Connell, Sr., East Las Vegas, N. M.
756354. Inhaler. Sydney O. Goldan, New York.
756252. Vaginal syringe. Wm. S. Locke, Cincinnati.
756544. Surgical or obstetric sheet. Wm. W. Townsend, Rutland, Vt.
756546. Combined hydrometer and syringe. Robert Van Benthuysen, Newark, N. J.
756441. Massage apparatus. Arthur Ward, Philadelphia.
756304. Sling. Frank L. Webster, Waialua, Hawaii.
757013. Anesthetic vapor inhaler. George L. Bennett, Chicago.
757177. Pneumatic massage apparatus. Frederick H. Crabtree, Anaconda, Mont.
756941. Spark-gap for Roentgen-ray apparatus. John T. H. Dempster, Schenectady, N. Y.
757287. Artificial leg. Lee Duggan, Rocky Mount, N. C.
756958. Optical appliance. Johann Harraes, Chicago.
757041. Muscle developing finger band. Samuel Hosfeld, Philadelphia.
757200. Atomizer. Stephen Kettle, Chicago.
757419. Diluent for medical compounds. Joseph M. Schutz, Minneapolis.
757153. Suspensory bandage. Wm. A. Tainsh, Portland, Me.
757157. Atomizer. Charles L. Turner, Winthrop, Mass.